

UNIVERSITY OF
ILLINOIS LIBRARY
AT URBANA-CHAMPAIGN
ACES

NOTICE: Return or renew all Library Materials! The *Minimum Fee* for each Lost Book is \$50.00.

The person charging this material is responsible for its return to the library from which it was withdrawn on or before the **Latest Date** stamped below.

Theft, mutilation, and underlining of books are reasons for disciplinary action and may result in dismissal from the University.
To renew call Telephone Center, 333-8400

UNIVERSITY OF ILLINOIS LIBRARY AT URBANA-CHAMPAIGN

L161—O-1096

JUN 13 2000
AGRICULTURE LIBRARY

Digitized by the Internet Archive
in 2011 with funding from
University of Illinois Urbana-Champaign

<http://www.archive.org/details/illinoispesticid22104univ>

The Illinois Pesticide Review

626-264



News About Pesticides and Regulations



Vol. 2, No. 2

May 1988

The Illinois Pesticide Review is sent monthly to county Extension advisers, Extension specialists, and others who are interested in the safe and effective use of pesticides. Its primary purpose is to provide concise information on legislation, regulations, and other developments that directly impact on the use of pesticides in Illinois.

The information given herein is provided for educational purposes only. Reference to pesticide trade names does not imply endorsement by the University of Illinois, nor is discrimination intended against any product.

IN THIS ISSUE

• EPA SURVEY OF PESTICIDES IN DRINKING WATER.	9
• PUBLIC HEALTH MONITORS WATER SUPPLIES	10
• AGRICULTURAL CHEMICALS IN GROUNDWATER: EPA'S PROPOSED PESTICIDE STRATEGY AVAILABLE FOR PUBLIC COMMENT.	10
• PESTICIDES AND GROUNDWATER: SURVEYS OF SELECTED MINNESOTA WELLS.	11
• IOWA LOOKS AT PESTICIDES AND POISONING SYMPTOMS	12
• EPA PROPOSES NOT TO INITIATE SPECIAL REVIEW OF PESTICIDE 2,4-D.	13
• RIGHTS-OF-WAY PESTICIDE MANUAL AVAILABLE.	14
• KELTHANE AVAILABLE FOR 1988	14
• DICHLORVOS IN SPECIAL REVIEW.	14

EPA SURVEY OF PESTICIDES IN DRINKING WATER

DEC 02 1992

The U.S. Environmental Protection Agency (EPA) initiated a nationwide survey in April to assess the level of pesticide contaminants in domestic rural wells and community water systems. The EPA will sample 1,500 domestic and community wells and expects to complete the survey by late 1989.

The counties and wells included in the survey are part of a statistical sample representing all domestic drinking water wells in the United States. None of the counties or wells was selected on the basis of any knowledge or suspicion of problems with drinking water quality.

The EPA has statistically selected 90 counties in 38 states in which domestic wells will be sampled in 1988 and 1989. Over 750 domestic wells will be sampled in the 90 counties. During a pilot study for the National Pesticide Survey conducted last year, the EPA sampled wells for pesticides in Mississippi, Minnesota, and California.

In Illinois, domestic wells will be sampled in Kane, Warren, McHenry, and Peoria counties. The proposed schedule for sampling of domestic wells follows: August-December 1988, Kane County; January-June 1989, Warren County; and July-December 1989, McHenry County, Peoria County.

PUBLIC HEALTH MONITORS WATER SUPPLIES

Illinois Department of Public Health officials are monitoring pesticides in water supplies at agrichemical mixing and loading facilities; they eventually expect to sample about 1,500 sites. Around 75 percent of the sites sampled so far contained at least one pesticide residue, usually in the parts per billion range. In testing for 20 to 30 pesticides, investigators routinely found alachlor, atrazine, metribuzin, metalochlor, and traces of heptachlor and chlordane. Over 60 percent of the wells had nitrate above the 10 parts per million (ppm) drinking water standard; many of the wells were old, shallow, or poorly constructed. In two small towns, pesticides were found in private drinking water wells near the agrichemical facilities, indicating groundwater movement. Because many facilities are near small towns that use private water supplies, there is reason for concern. In two instances, public wells near the facilities were also contaminated. To learn more, contact Tom Long, Environmental Toxicology, (217)782-5830; or Clint Mudgett, Environmental Health, Illinois Department of Public Health, (217)782-5830. (Health & Environment Digest, Vol. 2, May 1988).

AGRICULTURAL CHEMICALS IN GROUNDWATER: EPA'S PROPOSED PESTICIDE STRATEGY AVAILABLE FOR PUBLIC COMMENT

The EPA published a notice in the *Federal Register* on February 26, 1988, announcing the availability of *Agricultural Chemicals in Groundwater: EPA's Proposed Pesticide Strategy*. The EPA is requesting public comment on the policies and approaches proposed by this document.

The document covers three major areas:

1. The EPA's environmental goal will be to manage pesticides to protect unacceptable contamination of current and potential drinking water supplies. Maximum Contaminant Levels (MCLs) set under the Safe Drinking Water Act will determine unacceptable pesticide levels. For pesticides having no MCL, the EPA will develop interim criteria based on standard toxicological assessment procedures. Levels for potential carcinogens will be set by the definition for negligible risk (one in a million chance of cancer over a 70-year lifetime).
2. Overall prevention will be achieved through restricting the use of certain pesticides to certified applicators. In addition, states will work with the EPA to develop plans for prohibiting use of pesticides in specific areas because of groundwater concerns.
3. Any policy for dealing with existing problems must consider pesticide contamination both from misuse (including illegal disposal, leaks, or spills) and from normal registered uses.

The document also includes a brief summary of the groundwater contamination situation and key implementation questions and issues. The EPA is asking for

public comment by June 27 on the assessment, policies, and programs for the strategy and implementation of the proposed approach.

The strategy document is available from the EPA Public Information Center (PM-211B), 401 M Street SW, Washington, DC 20460.

PESTICIDES AND GROUNDWATER: SURVEYS OF SELECTED MINNESOTA WELLS

Between July 1985 and June 1987, the Minnesota Department of Health (MDH) and the Minnesota Department of Agriculture (MDA) conducted cooperative surveys of water wells for selected pesticides. The surveys were funded by the Legislative Commission on Minnesota Resources and were intended to provide baseline information on the occurrence and extent of agricultural pesticide contamination in the state's groundwater and drinking water.

In general, wells were selected for sampling in agricultural regions of the state in areas where the local or regional soils and hydrogeologic conditions make the groundwater especially susceptible to pesticide contamination. Karst aquifers and shallow sand and gravel aquifers overlain by coarse-textured soils were viewed as particularly sensitive and most likely to show evidence of groundwater contamination by pesticides. Some wells were also selected outside of these sensitive areas to provide a real coverage of the state's agricultural regions and diverse cropping patterns. The MDA sampled 100 observation, irrigation, and private drinking water wells and five drain tiles on a time-series or repetitive basis (typically four samples per site). The MDH collected a single sample at each of 400 public drinking water wells. A second sample was collected from each well in which pesticides were detected in the initial sample.

The results of the surveys indicated that several pesticides were present in groundwater, especially in hydrogeologically sensitive areas of the state. One or more pesticides were detected in 165 (33 percent) of the 500 wells sampled. Pesticides were detected more frequently in observation and private drinking water wells than in public drinking water wells. This difference is most likely attributable to the shallower depths of many of the observation and private drinking water wells and to their closer proximity to fields receiving pesticide applications.

Fifteen pesticides, including thirteen herbicides, one insecticide, and one wood preservative, were detected in the surveys. Atrazine, the most commonly detected pesticide in each survey, was found in 154 (31 percent) of the 500 wells sampled and in over 90 percent of the wells that tested positive for pesticides. Alachlor, the most commonly occurring compound in each survey, was found in 17 wells. Each of the remaining 13 pesticides was detected in seven or fewer wells.

Although the percentage of wells with detectable levels of pesticides was relatively high, the concentrations detected were usually low. Eighty-four percent of all pesticide occurrences were at concentrations of less than one part per billion. Concentrations exceeding health advisory levels established by the MDH were observed in samples collected from ten wells, including four public drinking water wells and one private drinking water well.

At the low concentrations typically observed in these surveys, public health concerns focus on potential chronic health effects. Chronic toxicity information

for many pesticides is limited. Although this body of information has improved significantly in recent years, it is difficult to associate specific health effects with exposure to low levels of pesticides in drinking water.

The widespread occurrence of pesticides, primarily atrazine, at low concentrations in certain areas indicates that groundwater contamination may result from normal pesticide use as well as from spills, leaks, back-siphonages, and other point sources. Nitrates were analyzed to determine if there was a relationship between nitrate and pesticide occurrence and their concentration in groundwater, and to evaluate nitrate testing as a surrogate for pesticide testing. Nitrates were not found to be a reliable indicator of pesticide occurrence or a quantitative predictor of pesticide concentration.

It is important to recognize the limitations of these surveys. A limited number of wells and pesticides was studied in a relatively short time frame under unusual precipitation conditions. As a result, these surveys do not provide a comprehensive statewide assessment of the extent of groundwater contamination by pesticides. Additional monitoring, research, regulatory, and education efforts are needed to minimize the effect of pesticides on groundwater quality and public health. (Pesticides and Groundwater: Surveys of Selected Minnesota Wells, Minnesota Department of Health and Minnesota Department of Agriculture, February 1988.)

IOWA LOOKS AT PESTICIDES AND POISONING SYMPTOMS

A recently reported survey suggests that Iowa farmers are being exposed to pesticides and that they are experiencing symptoms of poisoning even though they are wearing the recommended protective clothing. The survey is an effort of the North Central Regional Research Group, a group of university researchers formed ten years ago to address the needs of families wanting to know how to care for clothing to reduce pesticide exposure. Five states--Iowa, California, Oklahoma, Minnesota, and Michigan--participated in this survey examining the relationship between clothing and pesticide poisoning. Iowa State researchers, the first to report their results, found that more than half of 638 registered pesticide applicators in the state reported from 1 to 18 symptoms associated with pesticide exposure; the most frequent were headaches, skin irritation, tiredness, and dizziness. Organophosphates and carbamate insecticides and amide and triazine herbicides were the pesticides most frequently used.

The study did no monitoring and relied solely on the respondents' perceptions of their symptoms, so exposure cannot be proved. However, the study found a significant relationship between symptom reporting and pesticide toxicity, how often the pesticide got on clothes, fiber content of clothes, whether pesticide-soiled clothes were laundered before being worn again, and the number of weeks spent applying pesticides each year. Most of the farmers did not adjust their clothing according to the toxicity of the pesticide being applied, and most said they did not wear protective gear such as goggles and respirators. Only 30 percent reported wearing waterproof gloves; 23 percent reported wearing leather gloves, which cannot be effectively decontaminated.

The other four states participating in the survey also found perceived health effects among farmers working with pesticides. The Iowa results are summarized in "Relationships Between Clothing and Pesticides . . . Symptoms Among Iowa Farmers," published in the *Journal of Environmental Health*, Vol. 50, No. 4, January/February 1988. (Environmental Health Bulletin, Vol. 3, May 1988)

EPA PROPOSES NOT TO INITIATE SPECIAL REVIEW OF PESTICIDE 2,4-D

The U.S. EPA is proposing not to initiate a special review of the pesticide 2,4-D at this time after determining that existing epidemiologic and animal oncogenicity data are inadequate to assess its carcinogenic potential.

The EPA's action is based on a consensus of opinion from EPA scientists, national experts on epidemiology, and the Scientific Advisory Panel established by the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

The EPA believes, on the basis of all available evidence, that continued use of 2,4-D will not pose a significant hazard to the environment or to public health.

The EPA has reviewed a number of epidemiologic studies relevant to 2,4-D, including a new study conducted by the National Cancer Institute and the University of Kansas and published in 1986. This study concluded that the use of phenoxy herbicides, including 2,4-D, was linked to an increased cancer risk (non-Hodgkins lymphoma) among farmers handling such herbicides. Based on this epidemiologic evidence, the agency issued a preliminary notification of special review to the registrants of 2,4-D and its analogs, 2,4-DB and 2,4-DP.

EPA scientists and four national epidemiology experts who reviewed the Kansas study agreed that the study was well conducted and that it served as a good basis for associating non-Hodgkin's lymphoma and phenoxy herbicides. But the reviewers concluded that it was impossible to pinpoint 2,4-D as the causative agent in these non-Hodgkin's lymphoma cases. This uncertainty limited the usefulness of the study for regulatory purposes.

Some of the key areas of concern about the study are the lack of appropriate controls, exposure to multiple chemicals, and insufficient information on actual exposure to 2,4-D. The control group was composed of the general population, not just farmers; therefore, differences in lifestyles of the farmers may account for the difference in results. The agency concluded that the Kansas study provided inadequate evidence that cancer in humans could be attributed specifically to 2,4-D.

A number of other epidemiologic studies pertaining to 2,4-D were also evaluated by the agency, but they were found inappropriate for assessing a cancer risk for 2,4-D users. In addition, a 1987 epidemiologic study on 2,4-D use by farmers in western Washington, conducted by the National Cancer Institute, does not confirm the Kansas study's conclusions.

Given the conclusions of the animal oncogenicity study, the EPA considered classifying 2,4-D as an Interim Category C carcinogen (possible human carcinogen). In June, the FIFRA Scientific Advisory Panel, a committee of scientific experts from outside the EPA, reviewed the agency's classification of 2,4-D; they concluded that the increased incidence of brain tumors in male rats was equivocal evidence of oncogenicity and recommended additional testing. The panel also concluded that the available epidemiologic evidence was inadequate to classify 2,4-D with respect to carcinogenicity. Based on the EPA's own assessment and on the opinion of the panel, the EPA has now decided to classify 2,4-D in Category D (not classified as to human carcinogenicity) and will require additional testing in the rat and mouse. (*U.S. EPA news release*)

RIGHTS-OF-WAY PESTICIDE MANUAL AVAILABLE

The Illinois Pesticide Applicator Training Manual 39-5, *Rights-of-Way*, is now available. Copies may be obtained from the Office of Agricultural Entomology Extension, 172 Natural Resources Building, 607 East Peabody Drive, Champaign, IL 61820. The cost per manual is \$5.00, and checks must be made payable to the University of Illinois. (Phil Nixon, *Extension Entomologist*)

KELTHANE AVAILABLE FOR 1988

The Rohm and Haas Company has obtained registration for two formulations of dicofol, Kelthane 35 (35 percent wettable powder) and Kelthane MF (42 percent emulsifiable concentrate). These formulations contain less than 2.5 percent DDT impurities as dictated by the U.S. EPA. Because any Kelthane registered for sale in 1989 must comply with the U.S. EPA's requirements that it contain less than 0.1 percent DDT impurities, this year's Kelthane cannot be sold after December 31, 1988, and it cannot be used after March 31, 1989.

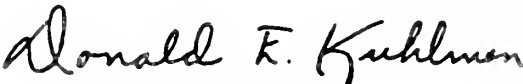
Kelthane 35 is labeled for use against mites on apples, pears, crabapples, quinces, grapes, strawberries, cucumbers, cantaloupes, melons, watermelons, pumpkins, and winter and summer squash. It is also labeled for use on turfgrass, flowers, woody ornamentals, and clover mites on buildings.

Kelthane MF is labeled for use against mites on beans, cotton, mint, citrus, grapes, strawberries, and walnuts. When purchasing Kelthane, remember to buy only what will be needed for 1988 because it will be illegal to use it after March 31, 1989. (Phil Nixon, *Extension Entomologist*)

DICHLORVOS IN SPECIAL REVIEW

Dichlorvos, also known as DDVP and sold as Vapona, is being subjected to special review by the U.S. EPA. This review was initiated due to its classification as a potential human carcinogen based on its cancer-causing properties in mice and rats. There is also concern due to adverse liver effects in dogs and its toxicity to the nervous system.

Dichlorvos is used in the home in resin pest strips (No-Pest Strip), pet flea collars, and various household aerosol flea, cockroach, ant, and wasp sprays. It is also used in livestock applications in sprays, back rubbers, fly baits, and wormers. The special review process may be lengthy due to requirements for additional data and the time required to process existing data. We will let you know of any changes in labeling or uses as they become known to us. (Phil Nixon, *Extension Entomologist*)


Donald E. Kuhlman
Extension Entomologist and
Pesticide Coordinator

The Illinois Pesticide Review



News About Pesticides and Regulations



Vol. 2, No. 3

June 1988

The Illinois Pesticide Review is sent monthly to county Extension advisers, Extension specialists, and others who are interested in the safe and effective use of pesticides. Its primary purpose is to provide concise information on legislation, regulations, and other developments that directly impact on the use of pesticides in Illinois.

The information given herein is provided for educational purposes only. Reference to pesticide trade names does not imply endorsement by the University of Illinois, nor is discrimination intended against any product.

IN THIS ISSUE

- LAWSUIT OVER PESTICIDE-TAINTED WELL WATER ENDS IN SETTLEMENT FOR CONNECTICUT RESIDENTS 15
- MODIFIED ENDANGERED SPECIES PROTECTION PROGRAM EXPECTED IN THE FALL . . . 16
- FARMWORKER PROTECTION STANDARDS IMMINENT 17
- MICHIGAN REPORTS MARKET BASKET SURVEY 17
- NEGLIGIBLE RISK BILL COMING 18
- FARMERS SHOULD ESTABLISH OWN AGENDA APART FROM CHEMICAL INDUSTRY 18
- FDA FINDS HIGHER VIOLATION RATE FOR IMPORTED FOODS IN RESIDUE SAMPLING 19
- PESTICIDE RESIDUES IN FOOD: A QUESTION OF SAFETY 20

LAWSUIT OVER PESTICIDE-TAINTED WELL WATER ENDS IN SETTLEMENT FOR CONNECTICUT RESIDENTS

DEC 02 1992

AG Library

Two pesticide manufacturers and three tobacco growers have agreed to settle for more than \$3 million in a water contamination suit affecting around 220 Connecticut homeowners.

The agreement, signed April 20, ends nearly two years of negotiations with the state of Connecticut over well water contaminated with the pesticide ethylene dibromide (EDB). The five companies that have signed the pact are Dow Chemical Company of Midland, Michigan; FMC Corporation of Philadelphia; Cublro Corporation of Windsor, Connecticut; Mulnite Farms; and Consolidated Cigar Corporation, a subsidiary of MacAndrews & Forbes Holdings, Inc., based in New York.

The companies agreed to contribute to two funds to cover the cost of filtering well water for the affected homes. The first fund covers capital costs and installation and maintenance of a filtering system for homes built before the agreement was reached on April 20; the second fund covers only maintenance costs

for homes built after that date. A well system, which includes a water meter, sediment filter, and two carbon filters, costs about \$900. The companies will deliver the first installment of \$1.23 million on May 10. That payment covers the first five years of a 30-year program.

Towns affected by the contamination are in the tobacco-growing area of north central Connecticut. Citizens in these towns have been receiving bottled water since the contaminated areas were identified in 1985. The state paid for the program initially; it was then picked up by the responsible companies.

The case is one of the largest settlements to date that makes pesticide manufacturers and applicators liable for environmental damage, even when products are used correctly. Sources say some of the EDBs were used on tobacco crops in the 1950s. (Dealer Report, Vol. 2, No. 17, May 2, 1988)

MODIFIED ENDANGERED SPECIES PROTECTION PROGRAM EXPECTED IN THE FALL

A redesigned endangered species protection program will probably be issued in late September or early October after a thorough review of all public comments, according to Allan Abramson of the Environmental Protection Agency (EPA).

Abramson told a meeting of the working committees of the State-Federal Issues, Research, and Evaluation Group (SFIREG) in Orlando, Florida, June 7 to 10, that he believed it was "highly unlikely" that the program would be "reannounced unmodified in the fall." He noted that the public comment period ended June 7 and that a series of public meetings around the country had addressed "just about every fundamental issue."

"What came through was a very strong demand for the EPA to prove the relationship between the use of a pesticide and the adverse effect on an endangered species prior to the taking of any action," Abramson said.

Abramson's interim summary from the public meetings on endangered species showed that the major topics addressed included the cause-and-effect link, preparation of economic impact assessments, and user compensation for any losses incurred by limitations on pesticide use. He summarized public opinion as follows:

- The public should be given the opportunity to comment on Fish and Wildlife Service opinions about whether or not pesticides might jeopardize endangered species before these opinions become finalized as law.
- State and local efforts to support the program should be funded by the federal government and established, through a formal rule-making procedure, as regulation rather than policy.
- Implementation should follow procedures in the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), Section 6(b), for establishing limitations, including demonstrating that the risks to endangered species outweigh the benefits of continued use. Also, exemptions from limitations for home and garden use should not be allowed.
- Pesticide prohibition should be used as a last resort. Alternatives could include classifying affected pesticides as restricted use products to be used only by certified applicators or under their direct supervision, relocating endangered species to federal preserves, changing pesticide application methods, reducing maximum application rates, and changing product formulations.

- The maps of currently occupied endangered species habitats were criticized as being inaccurate. Most persons attending the meetings felt the maps should be supplemented or replaced by habitat descriptions.
- Generic endangered species language should be on all labeling, alerting all users to their responsibility. The cluster approach of simultaneously reviewing groups of pesticides with similar uses for their impact on endangered species should be abandoned.

Approximately 470 persons attended the eight public meetings held during April and May. (Pesticide and Toxic Chemical News, June 15, 1988)

FARMWORKER PROTECTION STANDARDS IMMINENT

By the end of June, the EPA hopes to propose their long-awaited new standards for protecting workers exposed to agricultural pesticides. The EPA has been trying to reform the existing standards, adopted in 1974 and long considered inadequate, since 1983, fighting considerable controversy along the way. The current proposal, which covers farms, greenhouses, nurseries, and forests, has been at the Office of Management and Budget (OMB) since the first week of January.

If the draft standards are implemented, they will require employers to train and notify workers who are at risk, provide them with soap and water, and transport them to a medical facility if an accident occurs. Employers would also have to monitor the cholinesterase of commercial pesticide handlers if they are exposed to pesticides for three consecutive days or for six days in a 21-day period. Other proposals include more comprehensive labeling, increased use of protective clothing and equipment, and minimum field posting requirements. The draft treats pesticide handlers (including mixers, loaders, flaggers, applicators, and early reentry "scouts") differently than it treats other field workers such as harvesters, who are considered to have significantly less exposure to the chemicals.

Copies of the proposal can be obtained from Patricia Breslin of the EPA's Office of Pesticide Programs, (703)557-7666. Publication in the Federal Register will be followed by a 90-day comment period. (Environmental Health Bulletin, June 1988)

MICHIGAN REPORTS MARKET BASKET SURVEY

A recent Michigan market basket survey should relieve fears about possible food contamination by pesticides or industrial chemicals, according to the Michigan Department of Agriculture. Last year, the department responded to public concern by sampling over 230 food items from supermarkets in each of five Michigan cities, testing for 29 pesticides, 13 industrial chemicals, and 5 heavy metals. The survey was modeled after the Food and Drug Administration's (FDA) Total Diet Studies and, with few exceptions, the chemicals tested were those screened by the FDA. The study was designed to determine the dietary exposure of male adolescents between the ages of 16 and 19 (thought to be the biggest eaters) and infants and toddlers.

The results supported the FDA's past negative findings, but they also showed that Michigan's food supply meets or exceeds the Acceptable Daily Intake (ADI) standards set by the World Health Organization (WHO). Nine pesticides (alpha-BHC, dacthal, DDE, dichloran, dieldrin, endosulfan, endrin, methoxychlor, and tecnazene) were detected in the adult diet, but all were at levels well below ADI standards. Only endosulfan--at very low levels--was found in the infant diets.

Oils and fats, garden fruits (tomato products), and vegetables had the greatest variety of residues, with up to four different pesticides represented. The metals--zinc, mercury, lead, cadmium, and arsenic--also were well below the WHO provisional intakes. None of the industrial chemicals, including PCB, PPB, and EDB, was detected in either adult or infant diets. For more information, contact Barry Griffin, Michigan Department of Agriculture, (517)373-1087. (Environmental Health Bulletin, June 1988)

NEGLECTIBLE RISK BILL COMING

States will be playing an increased role in pesticide regulation as the EPA completes work on three major new policies, says John A. Moore, EPA assistant administrator for pesticides and toxic substances.

Moore says the EPA is close to a final decision on establishing a negligible risk standard for carcinogenic pesticides in food. The policy, he said, will "follow closely" recommendations made last June by a National Academy of Sciences committee. The committee said the EPA should define acceptable risk as "one chance in a million" of developing cancer.

Under current law, the EPA must target certain carcinogenic pesticides while leaving others that may be more dangerous on the market. The conflicting statutes do not allow the EPA to examine all pesticides in use and allow the safest to stay on the market, says Moore.

The agency is interested in interpreting the Delaney Clause as allowing a "negligible risk" standard, Moore said, although he acknowledged that such a policy would be controversial and vulnerable to challenges in court. (Chemical Regulation Reporter, Vol. 12, April 22, 1988)

FARMERS SHOULD ESTABLISH OWN AGENDA APART FROM CHEMICAL INDUSTRY

Farmers have aligned themselves with agricultural chemical makers on environmental issues for too long and should break away to establish their own political agenda, Rep. George Brown (D-California) told an agricultural group on April 20.

Brown said he was "amazed" that agriculture does not have its own environmental agenda and is left to react to issues brought up by others.

"Instead, you dance to the tune called by the environmental groups and react to their issues," Brown said. "Or, quite bluntly, you develop a coalition and carry the agenda of the agricultural chemical industries."

Brown is chairman of the House Agriculture Subcommittee on Department Operations, Research, and Foreign Agriculture. The panel oversees compliance with FIFRA.

Farming groups should get together and support initiatives for alternative agriculture, such as low-input agriculture research, which promotes limiting the total cost of farming by reducing chemical and other inputs, the congressman said. Farmers also should support integrated pest management and application efficiency research, Brown said.

"Why production agriculture has allowed environmental groups to dominate the agenda on this issue is a mystery to me," he commented, adding that there is deep support for environmental issues in the public at large as well as among farmers.

Mandatory recordkeeping of chemical application and well monitoring should be advocated by farm groups, Brown said, to provide realistic information to regulators. Without it, he said, regulators assume the highest possible application rates, leaving farmers more vulnerable to liability lawsuits resulting from detection of farm chemicals in groundwater. (Chemical Regulation Reporter, Vol. 12, April 22, 1988)

FDA FINDS HIGHER VIOLATION RATE FOR IMPORTED FOODS IN RESIDUE SAMPLING

The FDA's 1987 sampling program to determine pesticide residues in food showed higher violation rates for food that had been imported. A sampling of imported food for pesticide and industrial chemical residues showed a violation rate of 3.4 percent compared to 1.5 percent for domestic products. The violation rate for Mexican produce was 3.7 percent.

The monitoring program report was prepared by the Pesticides and Chemical Contamination Branch in the Center for Food Safety and Applied Nutrition; the report studied both pesticide and industrial chemical (for example, mercury, lead, and cadmium) residues.

In checking for pesticide residues in imported foods, 2,524 surveillance samples were taken, of which 77 warranted regulatory action; and 1,199 compliance samples were taken, of which 109 were actionable, the FDA said.

The FDA took surveillance samples of 5,665 domestic foods for pesticide residues and found that 85 required regulatory action. The agency also took compliance samples of 660 domestic foods for residues and determined that 81 warranted action.

Violations were found in mushrooms from the Republic of China (chlorpyrifos), hot red peppers from the Dominican Republic (methamidophos), cantaloupes from Mexico (methamidophos), cucumbers from Mexico (chlorpyrifos), lettuce from Mexico (methamidophos), peas from Mexico (carbaryl), peppers from Mexico (methamidophos, quintozone, azinphos-methyl, and ethion), squash from Mexico (endrin), tomato paste from Mexico (methamidophos), and tomatoes from Mexico (methamidophos).

There were 3,444 surveillance samples of Mexican produce (128 actionable) and 619 compliance samples (111 actionable).

Domestic products in violation for fiscal year 1987 were carrots (dieldrin), corn grain (methoxychlor), bluefish, carp, catfish, lake trout, and trout (PCBs), lettuce (mevinphos, nicotine, and folpet), romaine lettuce (mevinphos), mustard greens (mevinphos), parsnips (dieldrin), peaches (chlorpyrifos), purple hull peas (parathion-methyl), rice (malathion), rice grain (chlordane and chlorpyrifos-methyl), spinach (maneb and mevinphos), strawberries (cyhexatin and mevinphos), turnip greens (methamidophos, dimethoate, and mevinphos), wheat (malathion and chlorpyrifos-methyl), and reconditioned wheat (malathion). (Pesticide and Toxic Chemical News, May 18, 1988)

PESTICIDE RESIDUES IN FOOD: A QUESTION OF SAFETY

In February 1988, Illinois State University sponsored a public policy seminar, "Pesticide Residues in Food: Safe to Eat?" The seminar focused on *Regulating Pesticides in Food: The Delaney Paradox*, a controversial report issued by the National Academy of Sciences in June 1987. Perspectives on the report were presented at the seminar by Ann Lindsey, U.S. EPA; John McCarthy, National Agriculture Chemical Association; Don Kuhlman, University of Illinois; and Lawrie Mott, Natural Resources Defense Council. The National Resources Defense Council, a San Francisco-based environmental group, concentrates on changing federal laws and policies through litigation and work with federal regulatory agencies. The 70,000-member organization has five lawyers and four scientists who work full-time on pesticide issues. The comments given by Lawrie Mott, senior scientist with the Natural Resources Defense Council, follow.

Introduction

"We all have to eat, but does our food contain more than a safe amount of pesticide residues? As consumers, we are exposed to pesticide residues in food on a regular basis. Because the public has no way of knowing whether these chemicals are present in their food, laws and regulatory programs are critical for our protection. Unfortunately, numerous congressional and government reports have suggested that there are serious inadequacies in the existing programs that regulate pesticides. In particular, several of these studies specifically concluded that the current Environmental Protection Agency (EPA) and Food and Drug Administration (FDA) programs do not adequately protect consumers from pesticides in food.

"A shocking report issued by the National Academy of Sciences (NAS) last spring graphically illustrated the weaknesses in the government programs. The academy's report, entitled *Regulating Pesticides in Food: The Delaney Paradox*, estimated that the potential lifetime cancer risks from the legally permissible uses of only 28 pesticides on our food could be as high as 5.8 cancer cases per 1,000 exposed people. Immediately after the report's release, pesticide manufacturers, the food industry, agriculture, and the EPA criticized these calculations as an overstatement of the risks posed by pesticides in food. But here are four reasons why these numbers may not be unrealistically high.

"First, the NAS estimated the cancer risk posed by *only 28 food-use pesticides*. The total number of carcinogens in our food supply unfortunately is far greater than 28. The EPA has already identified additional carcinogens, and many more will be discovered as chemicals are finally tested. In fact, the NAS report identifies an additional 27 cancer-causing pesticides used on foods that were not included in the risk estimates. The NAS report contains an estimate of the carcinogenic risk solely from the plant growth regulator Alar, or daminozide, of 8.3 excess cancer cases per 1,000 exposed people. This chemical was not included in the total risk estimate but *daminozide alone is estimated to pose a larger risk than all the other 28 carcinogens combined*. Daminozide was excluded because it is not a fungicide, herbicide, or insecticide.

"Furthermore, the majority of pesticides in use today have never been thoroughly tested for their health hazards. Many have never been tested to determine whether they cause cancer. Currently, no complete statistics exist for fully identifying the data gap for cancer testing. In 1982, a congressional subcommittee estimated that between 79 and 85 percent of pesticides had not been adequately tested for

carcinogenicity. By the end of fiscal year 1985, the EPA had issued registration standards for 115 pesticide-active ingredients. Thirty-six percent of these chemicals had no acceptable oncogenicity studies on file at EPA; 41 percent had some data but had not completely fulfilled the requirement (generally for two tests); and only 23 percent had all required cancer data.

"Third, the NAS report understates the risk of cancer from pesticides in our food because only active ingredients were examined. Pesticide products contain both active and inert ingredients. Inert ingredients are just as likely to leave residues in food as active ingredients. The EPA recently identified 55 hazardous inerts, including 15 that are carcinogens, permitted to be used on food.

"Fourth, the NAS report did not consider all the dietary risks posed by carcinogenic pesticides. Some of these chemicals have contaminated drinking water, and this route of exposure was not included in the Academy risk assessment. For example, the carcinogenic herbicide alachlor has been found in both surface and ground waters that are drinking water supplies. Another carcinogen, atrazine, has also been detected in drinking water.

"In many ways, the academy's report refocused national attention on the failure of the current federal pesticide law and regulatory program to provide public health protection from pesticides in food. Let me explain how the federal programs are inadequate, and in conclusion, I will explain what needs to be done to make our food supply truly safe.

Federal Pesticide Tolerances May Exceed Safe Levels

"The EPA sets 'tolerances' or legal limits on the amount of pesticide which may remain as residues in foods. Tolerances are intended to represent the amount of residue that can safely be consumed. Yet, many EPA tolerances have been set at levels which cannot be expected to protect human health. Tolerances often were set even in the absence of adequate toxicological data.

"In a 1986 study of the EPA's reregistration program, NRDC revealed that the EPA possessed all required chronic toxicology data for only 8 of the 115 pesticide-active ingredients for which registration standards were completed by September 30, 1985.

"For another 10 active ingredients, the EPA decided that existing data were sufficient, even though none of these pesticides had a full set of neurotoxicity, mutagenicity, or chronic toxicity data.

"For the remaining 97 active ingredients (84 percent), the EPA identified 'data gaps' where there should have been detailed studies concerning the neurotoxicity, mutagenicity, and chronic toxicity of the pesticide. The overwhelming majority of these pesticides has current food uses and tolerances, despite the significant data gaps. Among the many pesticides which were granted tolerances before long-term risks of the chemical were studied are the herbicide alachlor and fungicides such as EBDCs--some of the most widely used agricultural chemicals in this country.

"Another major flaw in the EPA's tolerance-setting scheme is the use of outdated 'food factors,' or estimates of average dietary consumption of individual food commodities. To establish tolerances that are safe, the EPA calculates dietary exposure to pesticides. The EPA has assumed, for example, that no individual

consumes more than 7.5 ounces per year of avocados, artichokes, melons, eggplant, or nectarines. These figures underestimate many individuals' consumption of certain foods; therefore, the EPA's tolerance based on these estimates does not accurately assess the public's total exposure to pesticide residues in food.

**FDA'S Program to Monitor Pesticide Residues
in Food Is Seriously Flawed**

"The FDA is responsible for monitoring food for pesticide residues, seizing food that contains pesticide residues greater than EPA tolerances, and punishing violators of the food safety law where pesticides are concerned. FDA labs test produce which it suspects may violate U.S. pesticide tolerances, using one of five tests ("multiresidue methods"), which are capable of determining a number of different pesticides from a single sample.

"A total of 203 pesticides can potentially be detected using all five of the FDA's multiresidue methods. The FDA has identified that 496 pesticides may leave residues in food. If the FDA regularly ran all five methods on each food sample, it would still be unable to detect 59 percent of the 496 pesticides it lists as possibly leaving residues in foods.

"Many food-use pesticides cannot be detected by any of the FDA's five multi-residue methods. Approximately 40 percent of the pesticides classified by the FDA as having a moderate to high health hazard cannot be detected by any of the five multiresidue scans. Some of these pesticides, such as carbon tetrachloride, mancozeb, maneb, metiram, dinoseb, diuron, and MCPA, were used in American agriculture in 1986 in quantities exceeding 2 million pounds annually.

The FDA lacks adequate enforcement authority and rarely punishes violators of the pesticide laws. "The FDA does not have authority to detain domestic foods while residue testing is performed. Because the results of testing are not available on average for 28 days, much if not all of a violative food shipment may already be sold and consumed before the FDA learns that the violation occurred.

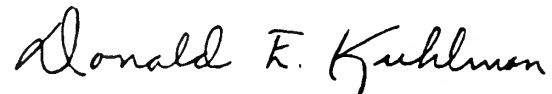
"The FDA also lacks the authority to impose civil penalties on growers or importers of crops which exceed pesticide tolerances. Because the only available penalties are criminal sanctions which are harsh and difficult to secure, the FDA does not routinely punish violators. The GAO, the federal government's independent auditor, found that of 179 domestic food samples which violated pesticide tolerances between October 1983 and June 1985, the FDA took action to seize a portion of only three shipments. None of the growers responsible for the 179 violative shipments was penalized. Even when repeat offenders violate the pesticide laws, penalties are not routine. In 1986, the GAO reported that only 8 of 22 importers who had repeatedly shipped crops violating the pesticide laws were assessed damages for distributing foods with excessive pesticide residues.

"Many studies have noted the FDA's failure to track the disposition of food shipments found to contain illegal pesticide residues. The GAO found that at least 60 percent (52 of 87) of spot-checked food shipments determined to violate pesticide residue limits in fiscal year 1985 were not recovered. A food sampling program can hardly be deemed successful if the violative goods are distributed and eaten by the unsuspecting public.

Conclusion

"The NAS report has clearly illustrated the risks posed by pesticides in food and the devastating consequences of the weaknesses in the federal government's programs to regulate pesticides. Although some organizations will wish to debate the report's findings, such an exercise would be thoroughly unproductive. The cancer cases estimated to result from dietary exposure to a handful of carcinogens are largely avoidable. Measures can be immediately taken to reduce the risks these cancer-causing chemicals pose to consumers. Ninety-six percent of the potential risk estimated in the NAS study comes from 12 pesticides. The use of these chemicals should be rapidly phased out. Safer chemicals should be substituted.

"Legislative reforms also would reduce the substantial risks from carcinogenic pesticides in food uncovered by the NAS report. Such reforms should include requiring full health and safety testing for pesticides, expediting EPA's procedures for taking dangerous chemicals off the market, and requiring regulation of hazardous inert ingredients. Registrants whose tolerances are not supported by adequate data must either swiftly submit the needed data or lose the tolerance--and the food use--of the pesticide. An enforcement program which swiftly finds violators of the pesticide law and punishes them is also needed. And both the EPA and the FDA require sufficient resources to carry out their charges to protect the public from pesticides. Other changes are needed as well. But these would be a good beginning."


Donald E. Kuhlman
Extension Entomologist and
Pesticide Coordinator

THE ILLINOIS PESTICIDE REVIEW INDEX 1988

- Dichlorvos, p. 14
- Drinking water wells
 - Connecticut lawsuit settled, pp. 15-16
 - monitoring for pesticide contamination, pp. 9-10
- Endangered Species Act
 - implementing pesticide program, pp. 1-2, 16-17
 - public opinion, pp. 16-17
- Farmers
 - pesticide poisoning in Iowa, p. 12
 - political agenda for environmental issues, pp. 18-19
- Farmworker protection standards, p. 17
- Food contamination
 - imported foods, p. 19
 - Illinois State University seminar, pp. 20-23
 - Michigan survey, pp. 17-18
 - negligible risk standard, p. 18
- Groundwater
 - EPA's proposed strategy available, pp. 10-11
 - near agrichemical facilities, p. 10
 - pesticides in, pp. 5-6
 - Minnesota surveys, pp. 11-12
- Illinois Environmental Council
 - public policy on pesticide use, pp. 4-6
- Kelthane, p. 14
- Negligible risk standard, p. 18
- Pesticide
 - 2,4-D, p. 13
 - contamination, pp. 1-2, 2-3, 5-6, 9-12, 15-16, 17-18, 20-23
 - labeling, p. 2
- Pesticide applicator certification
 - commercial application training workbooks, p. 6
 - private applicator training clinics, pp. 6-8
 - Rights-of-way training manual, p. 14
- Pesticide poisoning
 - of Iowa farmers, p. 12
- Safe Drinking Water Act, p. 2

The Illinois Pesticide Review



News About Pesticides and Regulations



Vol. 4, No. 1

January 1991

The Illinois Pesticide Review newsletter is starting up again written by the University of Illinois Pesticide Applicator Training team of Diane Anderson, Rhonda Ferree, Phil Nixon, Bob Wolf, and Nancy Pataky. It will be sent four to six times per year to county Extension advisers, Extension specialists, and others who are interested in the safe and effective use of pesticides. Its primary purpose is to provide concise information on legislation, regulations, and other developments that directly impact the use of pesticides in Illinois. Please direct comments and suggestions about this newsletter to the P.A.T. team.

The information given herein is provided for educational purposes only. Reference to pesticide trade names does not imply endorsement by the University of Illinois, nor is discrimination intended against any product.

IN THIS ISSUE

• Report Assails 69 Carcinogens Legally Allowed in Food Supply . . .	1
• How Accurate Are Those Tests?	2
• FDA Pesticide Data Confirm Industry Findings, NFPA Says	3
• Department of Food and Agriculture Reports Pesticide Residue Monitoring Results	3
• Agriculture's Role in Protecting Water Quality	4
• County Extension Office P.A.T. Manual and Workbook Orders	5
• Big Green and Careful	5
• EPA Warns Against Insecticide Chalk	5
• Groundwater Contamination Reduction Measures Proposed by OTA . . .	6
• 1991 Illinois Pest Control Handbook Now Available	6

DEC 02 1992

Report Assails 69 Carcinogens Legally Allowed in Food Supply ^{AG Library}

The Food and Drug Administration fails to detect almost half of the carcinogens in the U.S. food supply, the U.S. Public Interest Research Group charged in a report released September 3, 1990.

Federal pesticide regulations allow an estimated 69 carcinogens to exist in the nation's food supply, according to "Presumed Innocent: A Report On 69

Cancer Causing Pesticides Allowed in Our Food." But 32 carcinogens are invisible to the FDA's five multi-residue methods of monitoring food, the report said.

Copies of the report are available from U.S. PIRG, 215 Pennsylvania Ave., S.E., Washington D.C. 20003; (202)546-9707. (*Chemical Regulation Reporter*, September 7, 1990)

How Accurate Are Those Tests?

For 40 years, scientists have known that pesticides, solvents, and other chemicals can cause cancer. The problem is proving the link. With rare cancers, it's relatively easy. But with common ones, pinpointing the contribution of any one of thousands of causes is a herculean task.

That's where lab animals come in. Since harmful chemicals can't be tested on humans, rats and mice bear the brunt. But it might require thousands to pick up even a high 1-in-1,000 cancer risk at the low levels people are exposed to. By the mid-1970s, scientists had a new method--zapping rodents with massive doses. Many got cancer in tests of everything from the sweetener cyclamate to the pesticide Alar.

Skewed Results?

But now, many toxicologists see flaws in those tests. The mathematical models used to extrapolate from animal to human data do not consider the human carcinogens--and vice versa. Also, there's some evidence that massive doses skew results. When doses are lowered and the number of animals increased, which theoretically should prompt the same number of tumors, the correlation breaks down. "We don't like the test results," notes Ernest E. McConnell, a Raleigh, North Carolina, toxicology consultant.

Few scientists may agree with University of California at Berkeley biochemist Bruce N. Ames that high-dose animal tests should be junked, but the problems do have regulators in a quandary. Support is growing for a halt on relying only on animal tests to calculate cancer risks. But if regulatory agencies disclaimed them, chemicals identified as cancer-causing in the tests could be approved - and "there would be blood all over," says McConnell.

Scientists are optimistic that medical advances will eventually help identify cancer risks more precisely. Genetically altered rodents called transgenics, which better mimic human responses to foreign chemicals than natural animals do, show great promise. Still, it may take "25 years before we get it right," says Michael Gallo, a member of the National Academy of Sciences' Committee on Risk Assessment Methodology. Until then, massively dosed rats may be the next-best bet. (By John Carey, a *Business Week* editor based in Washington, D.C., October 15, 1990)

FDA Pesticide Data Confirm Industry Findings, NFPA Says

A statement from the National Food Processors Association (NFPA) asserted that the FDA's finding that most foods are "free of unsafe pesticide residues is borne out by industry data."

NFPA said that more than 12,000 samples of processed foods, collected by its laboratories since 1988, show even fewer detectable residues than were found by the FDA in its 1989 monitoring program.

Dr. Dennis R. Heldman, NFPA's executive vice president for scientific affairs, explained industry's lower detection rate by noting that processing steps such as washing and peeling "remove even trace amounts of residues."

Heldman said industry data, coupled with FDA's findings, "confirm that U.S. food processors are doing a fantastic job of continuing to reduce reliance on pesticides to provide an even better and more wholesome food supply. (*Pesticide and Toxic Chemical News*, October 3, 1990)

Department of Food and Agriculture Reports Pesticide Residue Monitoring Results

Less than 1 percent of more than 9,000 samples of fresh fruits and vegetables taken in 1989 by the California Department of Food and Agriculture's marketplace surveillance program had illegal residues of pesticides, the department reported August 2, 1990.

An analysis of 9,403 samples taken in 1989 revealed 0.71 percent of the samples had residues of pesticides that exceeded tolerance levels established by the federal Environmental Protection Agency, the department said in its report, *Residues in Fresh Produce - 1989*.

Of the 9,403 samples taken for the market place surveillance program, 78 percent had no detectable pesticide residues, and 21.3 percent had residues within established tolerances. Of the 0.71 percent of samples found with illegal residues, 0.22 percent had residues that exceeded the tolerances, and 0.49 percent had residues for which no tolerance is established.

To obtain a copy of the report, contact Department of Food and Agriculture Pesticide Enforcement, 1220 North St., Sacramento, California 95814; (916)322-5032. (*Chemical Regulation Reporter*, August 17, 1990)

Agriculture's Role in Protecting Water Quality

Agriculture is the remaining, major unregulated source of environmental, primarily water, pollutants.

With the budget for fiscal year 1990, President Bush launched a federal government initiative to protect water resources from contamination by fertilizers and pesticides without jeopardizing the economic vitality of U.S.

agriculture. Federal agencies will design water quality programs to accommodate both the immediate need to halt contamination...and the future need to alter farming practices that may threaten the environment.

To both society at large and to farmers, a program of research and education aimed at water quality protection would have a number of advantages over compulsion through regulation. For farmers, education and voluntary compliance offer at least a partial cost-share through subsidization of the development of new farming practices and of the dissemination of information that aids in adoption...And, importantly, voluntary programs are...in the spirit of farm policy over the past 50 years.

It seems difficult to accept the argument that farmers will adopt environmentally sensitive practices in their own self interest.

The President's water quality initiative puts its eggs in the research and education basket. But it is a choice that can be revoked. And pressure is increasing to do just that. The threat of regulation of farming practices is very real and must be given credence by the agricultural community. Society will not likely extend its long-standing exemption of farmers from responsibility for polluting.

For any other sector of the economy the allocation of the financial burden for prevention of pollution is an easily settled matter--the polluter pays and is compelled to do so through regulation. Whether agriculture cannot only escape regulation, but also avoid the costs of pollution prevention, however, is problematic. In the absence of federal budget constraints, society could choose to provide farmers with a monetary incentive to avoid polluting. Indeed, cost-sharing programs have a long history in agriculture conservation policy. However, the scope of the effort needed to avert water quality problems, compounded by a shortage of federal funds, precludes extensive cost-sharing as a viable federal option. The bottom line is that farmers must recognize that there will indeed be costs to preventing water resource contamination and that it may well be their responsibility to accept those costs in moving quickly to meet society's demands for protection of environmental quality. (By Susan Offutt, senior examiner with the Natural Resources Division, Office of Management and Budget, Washington, D.C. *Journal of Soil and Water Conservation*, January-February 1990)

County Extension Office P.A.T. Manual and Workbook Orders

All Pesticide Applicator Training (P.A.T.) manuals, workbooks, and other study materials are now available. Thank you for your understanding while some materials were not available; I think that we have solved the problem for the future. We have noticed some recurring problems with orders that are worth mentioning. County offices obtain the General Standards Manual - SP39 for \$2.00 and sell it for \$2.50. Private applicator workbooks are free to counties to use in their private pesticide clinics. If offered outside of the clinic, we recommend that you sell them for \$1.00 each. All other manuals, workbooks, and study materials are sold at the same price to county offices

and individuals. There is no price break for large orders. If you pay for P.A.T. materials through your county trust account, please send in a completed stores voucher with your order. (Phil Nixon, Extension Entomologist)

Big Green and Careful

The defeat of the Big Green environmental initiative in California in November was just one of several initiatives that was defeated in that state. Big Green, proposition no. 128, was voted down by a measure of 64 percent against, compared to 36 percent for the measure. Careful, proposition no. 135, was an initiative in the same election that was backed by agriculture concerning pesticide issues. Careful was defeated by a margin of 70 percent against, compared to 30 percent for the measure. Of a total of 28 propositions on the California ballot this fall, only five of them passed. An analysis of the results indicate that Californians voted against the cost of these propositions rather than the issues, since they also voted down money to be spent on higher education, water projects, jails, and child care. Some of the provisions in Big Green may pass in the future depending on how they are presented to the voters or California legislature. (American Fruit Grower)

EPA Warns Against Insecticide Chalk

An unregistered insecticide, deltamethrin, is apparently being sold in the Midwest under the name "Miraculous Insecticide Chalk." The insecticide looks like blackboard chalk and there are concerns that children will mistake it for blackboard chalk and may put it in their mouths while playing with it. The label directs the material to be applied along baseboards in the kitchen where children and pets are more likely to contact it than a typical ant and roach spray applied into cracks and crevices. USEPA is spot-checking grocery stores to see if it is being sold. If advisers or residents find this product being sold, the EPA would like to be contacted via their toll-free hotline: (800)572-2515. (EPA News Release)

Groundwater Contamination Reduction Measures Proposed by OTA

Integrating environmental protection into agricultural policy is seen by the Office of Technology Assessment (OTA) as essential to the long-term protection of groundwater from contamination, the office emphasized in a report, "Beneath the Bottom Line: Agricultural Approaches to Reduce Agrichemical Contamination of Groundwater," which also has a number of specific pesticide-related options for Congress to consider.

Options for congressional action in the report included:

- Limiting access to crop insurance subsidies and disaster payments to farmers with approved pesticide management plans.

- Requiring USDA to end or modify marketing orders found to contribute to groundwater degradation.
- Reducing agrichemical use by putting a lid on "bushels per acre" for commodity crops.
- "Directing EPA to develop agrichemical dealership licensing guidelines that include requirements for IPM expertise and information provision."
- Directing USDA to support pesticide use recordkeeping by farmers.
- Directing USDA to conduct "comparative economic analyses of agrichemical-based and alternative farming practices."
- "Requiring that OMB prepare matrices showing clearly the activities undertaken by each relevant federal agency or office, and provide an accompanying report detailing agency roles and responsibilities."

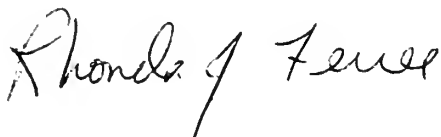
The summary of the report is available for \$4.00 from the Government Printing Office, Washington, D.C. 20402; (202)783-3238; GPO stock number 052-003-01191-3. (Adapted from *Pesticide & Toxic Chemical News*, May 23, 1990)

1991 Illinois Pest Control Handbook Now Available

This annual publication published by the University of Illinois College of Agriculture Cooperative Extension Service in cooperation with the Illinois Natural History Survey, has just been updated. The revised edition features important crop protection information on alternatives in insect management, pesticide application and equipment, weed control for field and forage crops, and much more.

To order your copy of this 525-page book, send a check or money order for \$14.00 with your name, complete address, and a note requesting publication number IPC-91 to the Office of Agricultural Communications and Education, 69-Pl Mumford Hall, 1301 West Gregory Drive, Urbana, IL 61801.

The development and/or publication of this newsletter has been supported with funding from the Illinois Department of Agriculture.



Rhonda J. Ferree
Extension Horticulturist
Pesticide Applicator Training

The Illinois Pesticide Review



News About Pesticides and Regulations



Vol . 4, No. 2

April 1991

The Illinois Pesticide Review is sent four to six times per year to county Extension advisers, Extension specialists, and others who are interested in the safe and effective use of pesticides. Its primary purpose is to provide concise information on legislation, regulations, and other developments that directly impact the use of pesticides in Illinois. Please direct comments and suggestions about this newsletter to the Pesticide Applicator Training (PAT) team.

The information given herein is provided for educational purposes only. Reference to pesticide trade names does not imply endorsement by the University of Illinois, nor is discrimination intended against any product.

IN THIS ISSUE

- Notice of Stop Sale and Recall of Three Fungicides by DuPont Agricultural Products . . 1
- Plastics Disposal 2
- USDA Pesticide Monitoring Program Unveiled 2
- Pesticide Recordkeeping Update..... 3
- Atrazine Now a Restricted-Use Pesticide 3
- EPA Policy Regarding Bulk Pesticides, Repackaging, and Custom Blending..... 4
- Herbicide Injury Samples..... 4
- Current PAT Projects..... 5
- New Pesticide Applicator Training Support Materials Available..... 5
- Status of the Endangered Species Protection Program 5
- Next Issue 6

Notice of Stop Sale and Recall of Three Fungicides by DuPont Agricultural Products DEC 02 1992

DuPont has initiated an immediate stop sale and recall of Benlate 50DF, Benlate 199 DF and Tersan 1991 DF fungicides in the United States. All dealers and distributors should stop sale of these products immediately and notify any Benlate and Tersan customers of the recall. Any grower, nursery owner, golf course superintendent, horticulturalist, university researcher, or applicator possessing any of these Benlate or Tersan products should return it to the point of purchase for a full credit.

DuPont has initiated the stop sale and recall because the products may contain atrazine herbicide. Because atrazine is a highly effective herbicide, spraying the affected Benlate and Tersan on plants

College of Agriculture, University of Illinois at Urbana-Champaign, Urbana Illinois
 State / County/ Local / U.S. Department of Agriculture Cooperating

The Illinois Cooperative Extension Service provides equal opportunities in programs and employment.

could result in injury to the plants. However, the level of atrazine that may be contained in Benlate and Tersan poses no human-health or food-safety problems.

DuPont will keep the stop sale in effect until quality assurance and analytical procedures can verify the purity of the product.

(Facsimile transmittal from E I du Pont de Nemours & Co, March 26, 1991)

Plastics Disposal

Association Meets Plastics Disposal Problem Head On

From its Washington, D.C., headquarters, the National Agricultural Chemicals Association is investigating the feasibility of large-scale recycling of used plastic pesticide containers.

As part of the NACA's feasibility study, the Central Can Co., Chicago, fabricated several thousand 2-1/2 gallon jugs from old pesticide containers that otherwise would have been discarded.

Plastics Disposal Group Formed

The American Society for Plasticulture (ASP) established the Plastics Disposal Committee to examine the disposal issue and to investigate two of the most promising solutions to this perplexing problem: recycling and incineration.

The committee identified several questions it wished to explore regarding the two disposal methods. Frank Fornari of AT Plastics, Brampton, Ontario (800-331-3606), and Tom Burke of Edison Plastics Co., South Plainfield, New Jersey (404-678-1581), were asked to research the incineration questions. Vince Meyers of AEP Industries Inc., Moonachie, New Jersey (813-992-8667), and Clarence Lemons of Hendrix and Dail Inc., Greenville, North Carolina (502-223-3232), were assigned the recycling research.

ASP Executive Secretary H. Carl Hoefer Jr. asks that plastics users who know of companies accepting used agricultural plastic film for recycling or incineration to contact these four individuals.

In addition to these moves, the committee also laid plans to solicit additional support from related trade groups and at least eight polymer suppliers.
(American Nurseryman, January 1, 1991)

USDA Pesticide Monitoring Program Unveiled

Dan Haley, administrator of USDA's Agricultural Marketing Service, unveiled plans March 3 for the department's Coordinated Pesticide Monitoring Program. The plans involve monitoring pesticide use and residues on fruits and vegetables in six states (California, Florida, Michigan, New York, Texas, and Washington); making economic analyses of the pesticide uses; and using food consumption patterns to determine the potential pesticide exposure to individuals.

Four USDA agencies will share responsibility for the program. Haley's Agricultural Marketing Service (AMS) will collect residue data on randomly selected fresh fruits and vegetables. The department's National Agricultural Statistics Service (NASS) will collect on-farm pesticide use data before and after harvest. The Economic Research Service (ERS) of USDA will use the collected information to provide an economic analysis of using alternative pesticides and will research the economic impact on prices and farm income from possible restrictions of pesticide use. The

Human Nutrition Information Service (HNIS) will use the pesticide data to determine the potential pesticide exposure to individuals.
(Pesticide and Toxic Chemical News, *March 6, 1991*)

Pesticide Recordkeeping Update

Private pesticide applicators are not required in 1991 to keep records of the application of restricted-use pesticides. The earliest projected time for applicators to start the recordkeeping process, as specified by the 1990 Farm Bill, is January 1992.

The USDA is currently in the process of drafting regulations that will outline the recordkeeping process, including what records or items must be kept. Much work remains to be done on the draft regulation before it can go to the USDA for final approval and sign-off. The USDA hopes to have the regulation published in the Federal Register for comment this summer.

The USDA has formed a committee of key agencies involved in developing and implementing the pesticide recordkeeping provision of the Farm Bill. NASS has been given the lead in defining the information that applicators will be required to maintain and collecting the data for yearly reports to Congress. NASS will be working closely with ERS, EPA, and the state regulatory agencies currently responsible for pesticide programs.

The USDA will be responsible for collecting data from agricultural applicators and reporting to Congress. AMS will take the lead in writing the regulation and putting an agreement together with the state lead agencies concerning enforcement of the regulation. The Cooperative Extension Service has the lead in delivering the educational and informational aspects of the provision.
(Bonnie Poli, *National Program Leader-Pesticide Education, USDA-Extension Service*)

Atrazine Now a Restricted-Use Pesticide

Atrazine has been classified as a restricted-use pesticide beginning in 1991. Atrazine has a high potential to leach and possibly reach groundwater, and is therefore a concern as a possible health risk. Results of a well-water survey conducted by Monsanto indicated that atrazine was found in approximately 12 percent of the wells surveyed. However, atrazine was found at levels above the MCL (maximum contamination level) of three parts per billion in only 8 percent of the contaminated wells (approximately nine of 10,000 wells surveyed). A U.S. EPA well-water survey indicated that atrazine was detected in 1.7 percent of community wells and 0.7 percent of rural wells; the detectable level was not indicated in this report.

To minimize any risk of groundwater contamination, certain restrictions have been placed on the use of atrazine and all premixes containing this active ingredient. Atrazine cannot be applied to cropland at greater than 3 pounds per acre (lb/A) or postemergence to corn or sorghum greater than 12 inches tall. It cannot be mixed or loaded within 50 feet of a well or applied within 50 feet of the outer perimeter of a sinkhole. Atrazine cannot be applied through irrigation systems, and fall applications are no longer allowed. The label specifies protective clothing that must be worn while mixing, loading, and applying atrazine. Atrazine products include AAtrex, Atrazine, and the premixes Bicep, Buctril + atrazine, Bullet, Extrazine, Griffex, Laddok, Lariat, Marksman, Ramrod/atrazine, and Sutazine.

(C. Diane Anderson, *Extension Assistant, Department of Agronomy, University of Illinois*)

EPA Policy Regarding Bulk Pesticides, Repackaging, and Custom Blending

Information in the *Illinois Private Pesticide Applicator Training Manual* (p. 120) and the *Illinois General Standards Study Guide* (p. 75) concerning bulk pesticides, repackaging, and custom blending is out of date. The EPA has recently developed a policy to permit dealers to repackage and sell pesticides in bulk without having to register the repackaged product, provided the dealer

1. Registers each of the repackaging sites owned or operated by the dealer as a "pesticide-producing establishment"
2. Obtains written authorization from the product's registrant to repackage the pesticide and use the registered label
3. Places the dealer's EPA-assigned establishment number on the product's label
4. Provides product's label and labeling to the end user
5. Keeps records as required by section 8 of FIFRA (shipping and receiving, sales, and so forth)
6. Reports annually to EPA the types and amounts of pesticides produced (repackaged) by the dealer; the EPA annual report is mailed to the company headquarters of the registered establishment by certified mail, usually in November or December

One exception to the above requirement is that if the entire production is confined to custom blending activities, the custom blender must only register with its EPA regional office as a pesticide-producing establishment. The custom blender is not required to file annual production reports or place the establishment number of the facility on the blended products, as other producers must.

(Loren Bode, professor of agricultural engineering, University of Illinois)

Herbicide Injury Samples

The Plant Clinic at the University of Illinois will be open for the 1991 season beginning May 1. One of the services offered is the visual diagnosis of potential herbicide injury situations. Such samples are diagnosed by weed science specialists at the University. Diagnoses are based solely on information provided and visual analysis. If you need a chemical residue test, the Plant Clinic cannot help.

When submitting samples for any sort of diagnosis, but especially for herbicide injury situations, we have a few helpful suggestions. Always avoid weekend mailings because these will frequently result in poor-quality samples. Send as much of the plant as possible, including the roots. Try to prepare the sample to prevent drying while also preventing tissue from rotting. The best way to do this is to wrap the roots and a bit of soil in plastic and seal the plastic at the stem. Leave the tops outside the plastic. Finally, wrap everything in loose newspaper and mail in a stiff cardboard box. If only leaves are available, place some between cardboard to keep them flat, and include others in the newspaper.

Accompanying information is especially important. Thoroughly describe the situation including development of symptoms over time, current appearance of plants, field symptoms, cropping history, chemicals used, and rate and timing of chemical application. Herbicide injury diagnosis is not a guessing game and can have very serious consequences, so give as much information as possible. Very little can be stated accurately without background information to help.

Samples can be sent to the Plant Clinic, 1401 West St. Mary's Road., Urbana, IL 61801. There is a \$5 fee per sample; it should accompany the sample. Make checks payable to the University of Illinois.

(Nancy Pataky, director of the Plant Clinic, University of Illinois)

Current PAT Projects

<u>Project</u>	<u>Anticipated completion</u>
<u>Commercial General Standards Manual</u> revision	Fall 1991
Rights-of-way video	May 1991
Aquatics slide set	May 1991
Rights-of-way slide set	June 1991
<u>Plant Management Manual</u>	In progress
Calibration video	Fall 1991

Any comments or suggestions concerning these projects are welcome.

New Pesticide Applicator Training Support Materials Available

Slide set

A Homeowners's Guide to Outdoor Pesticide Safety; includes slides, cassette tape, and instructor's guide.

Videos

Protecting Groundwater from Pesticides; 18 min.

Pesticide Storage for Farms and Businesses; 16.50 min.

Signs and Symptoms of Pesticide Poisoning; 12.27 min.

What the Wary Ones Wear; 17.42 min.

For a complete list of materials available or to borrow any support materials, contact:

Robert Wolf

360Q A.E.S.B.

1304 W. Pennsylvania Ave.

Urbana, IL 61801

(217)333-9418

Status of the Endangered Species Protection Program

In March 1991, an Endangered Species Forum in Kansas City, Kansas was hosted by regions V and VII of the U.S. Environmental Protection Agency to discuss the status of the Endangered Species Protection Program. Attendees were representatives of EPA, Fish and Wildlife Service (FWS), state lead agencies for pesticide regulation (in Illinois, the Department of Agriculture), universities, environmental groups, and farmers whose livelihood could be impacted by the Endangered Species Act (ESA).

Section 7 of the ESA requires federal agencies to protect endangered and threatened species and their habitat from any activities the agencies endorse, fund, or for which they are otherwise responsible. Therefore the U.S. EPA is mandated to protect these species from adverse effects of pesticide use. The goals of the EPA are twofold: first and foremost, to protect endangered species from adverse effects of pesticide use, and second, to minimize the burden on pesticide users.

Several decisions about how the act will be administered regarding the use of pesticides are still under discussion. At this time it appears likely that pesticide labels will carry a generic statement indicating that the product cannot be used in an area of a specific endangered species. This will put the burden on the pesticide user to find out whether the pesticide can be used in his or her pest control operation. Therefore information will be provided in some form of a pesticide use bulletin giving the exact location of the species. The bulletin will also recommend alternative methods of pest control, for example, nonchemical control, alternative pesticides, or perhaps lower rates or alternative timing of applications for the affected pesticide. It has not been determined how these bulletins will be distributed to reach the pesticide user. It is also unclear how the act will be enforced to include yard and garden use of pesticides.

Two Illinois species are on the federal endangered species list: the prairie bushclover and the Iowa pleistocene snail (a mollusk). About five or six maps are currently being developed in areas where the prairie bushclover intersects pesticide use. Mollusk maps are also being developed but will not be completed in the near future.


The ESA as it affects pesticide use is not expected to become an enforceable program before early 1992. Pesticide manufacturers will then have a specified period of time to relabel all affected products. During the interim, pesticide users in areas of endangered species will be encouraged to seek alternative methods of pest control as specified in interim county bulletins.

(C. Diane Anderson, Extension Assistant, Department of Agronomy, University of Illinois)

Next Issue

Report from Robert Wolf and Phil Nixon on new issues and ideas discussed at the national PAT meeting held April 16-18 in Virginia.

The development and/or publication of this newsletter has been supported with funding from the Illinois Department of Agriculture.



Rhonda J. Ferree
Extension Horticulturist
Pesticide Applicator Training

72
4:3

The Illinois Pesticide Review



News About Pesticides and Regulations



JAN 26 1995

Vol. 4, No. 3

AG Library

October 1991

The Illinois Pesticide Review is sent four to six times per year to county Extension advisers, Extension specialists, and others who are interested in the safe and effective use of pesticides. Its primary purpose is to provide concise information on legislation, regulations, and other developments that directly impact the use of pesticides in Illinois. Please direct comments and suggestions about this newsletter to the Pesticide Applicator Training (PAT) team.

The information given herein is provided for educational purposes only. Reference to pesticide trade names does not imply endorsement by the University of Illinois, nor is discrimination intended against any product.

IN THIS ISSUE

• National Pesticide Applicator Training and Certification Workshop	1
• Malathion Uses Dropped and Supported	2
• Endangered Species Program Bulletins and Maps	3
• EPA Proposes New Criteria for Restricting Use of Pesticides that May Contaminate Groundwater	3
• New Pesticide Applicator Training Support Materials Available	3
• Pesticide Usage in 1990 on Field Crops Noted in USDA Report	4
• Farmers Not Speaking Out	4
• Information Resources Hotline	4
• EPA to Apply Negligible Risk Standard for Agricultural Chemicals in Processed Food	5
• Benlate Uses Dropped	5
• Uniroyal Plans to Cancel Some Uses of Rescue	6
• Commercial PAT Clinics Scheduled	6
• Local Pesticide Ordinances	7
• Funds Available for Private PAT Meetings	8

National Pesticide Applicator Training and Certification Workshop

The 1991 National Pesticide Applicator Training and Certification Workshop attracted approximately 200 participants to Arlington, Virginia to discuss issues facing pesticide educators and regulators. State Extension service pesticide coordinators were well represented along with state lead agency, federal and regional EPA, and USDA personnel. Others in attendance included

College of Agriculture, University of Illinois at Urbana-Champaign, Urbana Illinois
State / County/ Local / U.S. Department of Agriculture Cooperating

The Illinois Cooperative Extension Service provides equal opportunities in programs and employment.

Canadian provincial representatives, U.S. territorial pesticide coordinators, industry and trade association officials, and interested individuals. Attending from Illinois were Bob Wolf and Phil Nixon.

The three-day conference featured speakers, panel discussions, and workshop sessions along with a variety of educational exhibits. The speakers and panel discussions focused on problems facing the PAT program like funding and state and federal support, risk communication, and new regulations and materials. The breakout workshop sessions featured innovative programming and special issues such as "Hands-On Training for Pesticide Applicators," "Multilingual Training Materials," "1990 Farm Bill Record-Keeping Requirements," and "Farmstead Risk Assessment."

A bibliography of pesticide applicator training materials was distributed at the workshop. The bibliography was prepared by the National Agricultural Library.

The National Agricultural Library (NAL), in cooperation with the U.S. Environmental Protection Agency (EPA) and the U.S.D.A. Extension Service (ES), is developing a comprehensive collection of bibliographic material for use in pesticide applicator training (PAT). This collection builds on publications acquired by NAL through an agreement with EPA and ES in 1983 and is documented in Charles Beebe's bibliography, *Guides and Manuals for Pesticide Applicator Training: January 1979-August 1985*. This bibliography is a reflection of the continuing effort to enhance the present collection with new and current titles.

A copy of this bibliography is available for your review. Contact Robert Wolf, 360-Q AESB, 1304 W. Pennsylvania Ave., Urbana, IL 61801; (217)333-9418. (Bob Wolf, Extension Specialist in Agricultural Engineering, University of Illinois).

Malathion Uses Dropped and Supported

The National Agricultural Chemicals Association is cooperating with a USDA Minor Use Task Force to inform minor crop producers and other interested parties about pending cancellations of pesticide registrations for minor uses.

The USDA also plans to field calls on minor-use pesticide registration support at (800)262-0216.

Malathion products have been undergoing reregistration since the malathion reregistration standard was issued in February 1988. Cyanamid and A/S Cheminova joined to create the Malathion Reregistration Task Force (MRT) to support and produce the product generic data and all U.S. EPA requirements for the manufacturers' labels of technical material. This effort is proceeding smoothly.

Because of the concern with malathion, expect label changes on formulations you have counted on in the past. (Taken from a letter by Ray S. McAllister, Director of Regulatory Affairs, National Agricultural Chemicals Association)

Endangered Species Program Bulletins and Maps

In an attempt to define the roles and responsibilities of Extension in the EPA Endangered Species Program, the USDA Extension Service (ES) and the Office of Pesticide Programs, EPA, have reached an agreement on distribution of maps and bulletins for the program.

This is an agreement to make the bulletins and maps available upon request at the county offices. There has been no commitment to programming or additional educational materials or training.

The goal is for a final regulatory program to be effected in 1992. (Bonnie Poli, National Program Leader-Pesticide Education, USDA-Extension Service)

EPA Proposes New Criteria for Restricting Use of Pesticides that May Contaminate Groundwater

The U.S. Environmental Protection Agency is proposing the addition of new criteria for identifying pesticides as candidates for restricted use because of their potential for contaminating groundwater.

"This rule will improve EPA's ability to identify, and, if necessary, restrict the use of pesticides that pose risks of contaminating groundwater," said EPA administrator William K. Reilly. "The proposed rule reflects EPA's emphasis on preventing groundwater pollution, which is one of the guiding principles for all EPA programs." (Bonnie Poli, National Program Leader-Pesticide Education, USDA-Extension Service)

New Pesticide Applicator Training Support Materials Available

The following new materials are now available for pesticide applicator training.

Slide set
Aquatics

Videos

The Circle of Food Safety; 16 min.

Working the Right of Way; 23 min.

A Homeowner's Guide to Outdoor Pesticide Safety; 21 min.

Two copies of the video and slide set, "Homeowner's Guide to Outdoor Pesticide Safety," have been ordered and are available for use in the counties. Contact Robert Wolf if you would like this material for any of your local programs. If enough counties would like a set of their own, we may be able to purchase a quantity at a lower price.

Booklets

EPA's Pesticide Programs; 21T-1005; available through EPA headquarters, Office of Pesticide Programs, 401 M St. S.W., Washington DC 20460; (703)557-7102.

For a complete list of materials available or to borrow any support materials, contact: Robert Wolf, 360Q A.E.S.B., 1304 W. Pennsylvania Ave., Urbana, IL 61801; (217)333-9418.

Pesticide Usage in 1990 on Field Crops Noted in USDA Report

A USDA report, "Agricultural Chemical Usage: 1990 Field Crops Summary," National Agricultural Statistics Service (NASS), released last week, presented the percentage of acreage of corn, upland cotton, fall-season potatoes, rice, soybeans, and winter, spring, and durum wheat treated with pesticides and the most commonly used pesticides on each crop.

For corn. Herbicides were used on 92.4 percent of the acreage in the 47 corn states, and insecticides were used on 30.9 percent of the acreage. The most commonly used herbicides were atrazine and metolachlor, used on 64 percent and 26 percent of the acreage, respectively. The most commonly used insecticide was terbufos, used on 12 percent of acres treated.

For soybeans. In the 29 states surveyed, herbicides were used on 94.8 percent of the acreage. Trifluralin and chlorimuron-ethyl were the two herbicides most frequently used, on 37 percent and 20 percent of the acreage, respectively. Insecticides and fungicides were not used on a significant portion of the acreage. (*Pesticide and Toxic Chemical News*, March 27, 1991)

Farmers Not Speaking Out

Environmental groups do a better job of lobbying the EPA to cancel a pesticide than do farmers to defend the product's use. A study by the University of Maryland and Resources for the Future found that environmentalists commented five times as often as growers--and on almost half of all decisions made. Growers submitted comments on only 10 percent. Academics did a little better, commenting on 28 percent of the decisions, usually in support of growers and industry. The study examined special reviews of 37 ingredients between 1978 and 1989 and found cancellations were less likely when producer benefits, such as preventing yield losses, were high. (*Farm Chemicals*, May 1991)

Information Resources Hotline

U.S. Environmental Protection Agency Provides Information Resources. The EPA operates a variety of hotlines to provide public access to EPA's programs, technical expertise, and services. The hotlines are staffed by experts who will respond to questions on a broad range of environmental issues. The various hotlines are operated out of Washington, D.C. and/or the EPA regional offices.

National Pesticides Telecommunications Network Hotline: 1(800)858-7378; in Texas, (806)743-3091.

Provides pesticide-related health, toxicity, and minor cleanup information to physicians, veterinarians, fire departments, government agencies, town and township officials, and the general public. Provides information on pesticide products, basic safety practices, health and environmental effects, and

cleanup and disposal procedures. The hotline is staffed by pesticide specialists at Texas Tech University's School of Medicine. It operates 24 hours a day, 365 days a year.

RCRA/CERCLA (Superfund) Hotline: 1(800)424-9346.

Responds to questions on the Resource Conservation and Recovery Act (solid waste and hazardous waste questions and issues), and the Comprehensive Environmental Response Compensation and Liability Act (Superfund, community right-to-know, reportable quantities, and above- and underground storage tank questions and issues). Operates Monday through Friday, 8:30 a.m. to 7:30 p.m., EST.

National Poison Control Center Hotline: (202)625-3333.

Operated by Georgetown University Hospital in Washington, D.C., this hotline provides information on accidental ingestion of chemicals, poisons, and drugs.

(Excerpt from *Rural Development News*, April 1991)

EPA to Apply Negligible Risk Standard for Agricultural Chemicals in Processed Food

The EPA has formally decided it will apply a "negligible risk" standard for agricultural chemicals that may find their way into processed food products. This means that the chemical poses no more than a one-in-one-million risk of cancer over a lifetime of regular consumption.

According to EPA administrator Linda Fisher, the agency has taken this position to resolve the longstanding conflict between two provisions of the 1954 food safety law. One provision requires the EPA to balance benefits against risks in regulating pesticides on raw agricultural products. The other provision applies the Delaney Clause to the presence of carcinogens in processed food products. Fisher said the EPA's decision reflects the agency's belief that Congress envisioned a "cutoff" for chemicals of negligible risk. It is the only way, she added, that one can make sense of two inconsistent provisions of the statute.

"We want the safest food supply possible," she said. "But agricultural chemicals greatly improve the abundance and variety of foods in our diet. We believe the statute allows for them as long as the health risks are trivial." (*National Broiler Council-Washington Report*, February 22, 1991)

Benlate Uses Dropped

The DuPont Company has issued the following statement regarding the use of Benlate.

"The DuPont Company has decided to delete all ornamental uses and all dip, drench, container, and greenhouse uses from its Benlate and Tersan (wetttable powder) WP fungicide product labels in the United States.

"We constantly review our product lines to make sure they are adding value to our business and that we can properly service our customer's needs. The small market potential for the uses being dropped indicates that remaining in these markets does not make good business sense. . . .

"There are no plans to make any further changes in the registered uses of the product. Benlate WP is registered for use in controlling a number of diseases on a variety of crops. Tersan WP is labeled for controlling a number of diseases in turf. . . .

"Questions related to the label changes can be answered by calling Du Pont at 1(800)253-5225." (Stephen R. Foor, Ph.D., Product Development Manager, Fungicides)

According to Dr. Malcolm Shurtleff, plant pathology specialist, University of Illinois, there are a few alternatives. Topsin 4F; Topsin M, 70% WP; and Cleary 3336 WP; and Cleary 3336-F are labeled similarly to old labels for Benlate and Tersan 1991 dealing with ornamentals. Labels must be checked for crop registration. Dr. Shurtleff adds that Curalan (BASF product) will do about the same job as Ornalin (Grace-Sierra product).

Uniroyal Plans to Cancel Some Uses of Rescue

Uniroyal Chemical Company plans to voluntarily cancel product registration for Rescue herbicide (EPA Reg. No. 400-166) used for postemergence weed control in soybeans and to delete the soybean use from the label for Alanap-L herbicide (EPA Reg. No. 400-49). The active ingredient in both of these products is naptalam. These uses are not being supported because of the costs of data development for reregistration. Alanap uses on cucurbits and nursery stock will be supported. Uniroyal expects that the current supplies of naptalam-containing products (for soybean use) can continue until supplies are exhausted, until approximately the first half of 1993. Contact Uniroyal Chemical Co. Inc., Middlebury, CT 06749; (203)573-2298, fax (203)573-3394, for more information. (Ray S. McAllister, Director Regulatory Affairs, National Agricultural Chemical Association)

Commercial PAT Clinics Scheduled

The Commercial Pesticide Applicator Training Clinics have been scheduled for 1991-1992. The schedule below contains those clinics outside of northeastern Illinois followed by those from northeastern Illinois. Grain facility meetings are listed last.

1991-1992 Commercial Pesticide Applicator Training Clinics

<u>Date</u>	<u>City</u>	<u>Training*</u>	<u>Location</u>
Nov 25	Mt. Vernon	GS, ROW	Ramada Inn
Dec 5,6	Galesburg	GS, Field Crops	HoJo Inn
Dec 18,19	Mt. Vernon	GS, Field Crops	Ramada Inn
Jan 8,10	Urbana	Field Crops, D&R	Illini Union

Jan 13,14	Rockford	GS, Turf, Orn, ROW	Clock Tower
Jan 22,23	Springfield	GS, Turf, Orn, ROW	Ill. Bldg., State Fair
Jan 30,31	Rochelle	GS, Field Crops	Concord Inn
Feb 3,4	Collinsville	GS, Turf, Orn, ROW	Gateway Center
Feb 5,6	Champaign	GS, Field Crops	Chancellor Inn
Feb 13,14	East Peoria	GS, Turf, Orn, ROW	Holiday Inn
Feb 20,21	Jacksonville	GS, Field Crops	Holiday Inn
Feb 24,25	Mt. Vernon	GS, Turf, Orn	Ramada Inn
Feb 26,27	Champaign	GS, Turf, Orn	Chancellor Inn
Mar 19,20	Moline	GS, Turf, Orn, ROW	Holiday Inn
Mar 24	Teutopolis	GS, ROW	Knights of Columbus
Mar 26	Springfield	GS	CES Building
Apr 14	Fairview Hgts	GS, Mosquito	Ramada Inn
Apr 15	Mt. Vernon	GS, Mosquito	Ramada Inn
Apr 20	Kankakee	GS, Mosquito, ROW	Olivet Nazarene Coll.
Apr 23	Springfield	GS	Ill. Dept. Agri. Bldg.

1992 Northeastern Illinois Commercial PAT Clinics

<u>Date</u>	<u>City</u>	<u>Training</u>	<u>Location</u>
Feb 18,19	Mundelein	GS, Turf, Orn	Holiday Inn
Feb 24	Joliet	GS	Holiday Inn
Mar 3	Crystal Lake	GS	Hob Nob II Restaurant
Mar 9,10	Willowbrook	GS, Turf, Orn	Holiday Inn
Mar 18,19	Glencoe	GS, Turf, Orn	Chicago Botanic Garden
Mar 24,25	Alsip	GS, Turf, Orn	Holiday Inn
Apr 8,9	Wheaton	GS, Turf, Orn	DuPage Co. Fairgrounds
Apr 14,15	Glencoe	GS, Turf, Orn	Chicago Botanic Garden
May 5,6	Willowbrook	GS, Turf, Orn	Holiday Inn
Jun 2	Wheaton	GS	DuPage Co. Fairgrounds

*GS = General Standards, D&R = Demonstration & Research, Orn = Ornamentals, ROW = Rights-of-Way.

Grain Facility and Private Applicator-Fumigation Clinics

<u>Date</u>	<u>City</u>	<u>Location</u>
Nov 13	Springfield	Illinois Department of Agriculture
Nov 18	Mt. Vernon	Ramada Inn
Nov 22	Mendota	Civic Center
Nov 25	Normal	Holiday Inn

(Phil Nixon, Extension Entomologist)

Local Pesticide Ordinances

On June 21, 1991, the U.S. Supreme Court unanimously ruled that local governments such as cities, towns, and villages, can regulate pesticide use.

Local ordinances have been struck down in the past based on the decision that the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) preempts all governments except state governments from enacting pesticide rules. The Supreme Court's decision on June 21 stated that FIFRA does not specifically prohibit local ordinances or show any indications that local rules could not be made.

Local ordinances that are likely to be enacted include requirements of permits before pesticides can be applied, restrictions on the sale and transportation of pesticides or of treated plants, and additional requirements that neighbors be notified before pesticides are applied.

FIFRA does contain language that would allow states to enact laws regulating the kinds of local ordinances that could be enforced. Professional associations have been working at both the state and national level to get legislation proposed that will preempt local ordinances. (*Pesticide and Toxic Chemical News, Growing Trends-Illinois Nurserymen's Association, National Pest Control Association News*)

Funds Available for Private PAT Meetings

The Pesticide Applicator Training program is partially funded by the Illinois Department of Agriculture's Pesticide Control Fund. Included in this year's grant to the University of Illinois are some funds to help pay for larger meeting facilities for Private Pesticide Applicator Training Clinics. The intent of these funds is to encourage larger, but fewer, private clinics. It is recommended that neighboring counties hold meetings together to help share the teaching load and to teach more applicators at once.

Each county office will be receiving additional information concerning private PAT clinics within the next couple of weeks. A form to apply for funds to pay for larger meeting space, such as hotel meeting rooms, will be included. There is sufficient money available to help fund about 30 meeting rooms at a cost of about \$300 each. It is recommended that a registration fee be charged to help offset the room costs as well as other costs such as coffee, manuals, and publicity. (Phil Nixon, Extension Entomologist)

The development and/or publication of this newsletter has been supported with funding from the Illinois Department of Agriculture.



Nancy R. Pataky
Extension Plant Pathologist
Pesticide Applicator Training

The Illinois Pesticide Review

News About Pesticides and Regulations

JAN 19 1994

AG Library

1201 S. Dorner Dr. • Urbana, IL 61801 • (217) 244-4397

Vol. 6, No. 7

December 1993

Concerns About the Risks from Pesticides

Public Voice for Food and Health Policy recently released "What Americans Think About Agrichemicals." The survey attempts to measure public attitudes about agrichemical use, health, and environmental concerns over the use of pesticides, and support for public policies that deal with pesticide issues. Below is a partial listing of findings from the executive summary of the survey.

- Concern among Americans about the effects of agrichemical use on health and the environment is very strong.

- A majority of the public believe it is very important for U.S. farmers to switch to low-chemical production strategies that rely primarily on natural methods.

- The vast majority of Americans want the federal government to play an active roll in reducing the use of chemicals in agriculture.

- Support is widespread for taxing agrichemical sales and profits to finance government programs that bring about reductions in agrichemical use.

- The majority of consumers want to know the extent of agrichemicals on foods sold in food stores, and they favor tough labeling laws.

- Confidence in the federal government's current commitment to protecting consumers against hazards from agrichemical use is not strong.

(Adapted from *Public Voice for Food and Health Policy*, April 1993, via Purdue's *the LABEL*, October 1993) ▲

Illinois Pesticide Preemption Challenged

The city of Schaumburg recently filed suit against the state of Illinois over the preemption legislation. The city has a pesticide ordinance requiring that residents be notified of any chemical spraying in the area and have declared that they will follow their decision until a court rules otherwise. They are supported by the League of

Women Voters of Illinois and the state chapter of the Sierra Club, as well as officials from Hoffman Estates, Elk Grove Village, and Hanover Park, who are said to have pledged financial support for the lawsuit.

(*The Landscape Contractor*, November 1993) ▲

In This Issue

Concerns About the Risks from Pesticides	1
Illinois Pesticide Preemption Challenged	1
Methyl Bromide Tax	2
CBS Wins Summary Judgment in Alar Case	2
Pesticide Update	3
Keeping Us Safe From Cedar ..	5
Index of 1993 Issues	6

The Illinois Pesticide Review newsletter is sent four to six times per year to Extension personnel, specialists, and others who are interested in the safe and effective use of pesticides. Its primary purpose is to provide concise information on legislation, regulations, and other developments directly impacting pesticide use in Illinois. Please direct comments and suggestions about this newsletter to the Pesticide Applicator Training (PAT) team of Diane Anderson, Rhonda Ferree, Walker Kirby, Phil Nixon, and Bob Wolf.

The information given herein is provided for educational purposes only. Reference to pesticide trade names does not imply endorsement by the University of Illinois, nor is discrimination intended against any product.

Methyl Bromide Tax

A proposed tax on methyl bromide was abandoned after produce industry representatives convinced House Ways and Means subcommittee chair Charles Rangel, D-N.Y., that the tax was premature and would be economically damaging. Republican William Thomas, R-Cal., led the fight to block the tax.

The legislation had proposed a 1994 tax of \$3.05 a pound, which was higher than the product's cost. One economic loss estimate showed that a ban on methyl bromide would cost the product industry more than \$1.4 billion a year. The tax would raise \$170 million a year in revenue.

The EPA is moving ahead with plans to eliminate all uses of methyl bromide. An international agreement, the Montreal Protocol, has called for eliminating the fumigant. However, a number of nations say they plan to exempt agricultural uses from the ban, particularly postharvest uses, which are vital to international trade in produce. U.S. grower groups fear this exemption would put them at a disadvantage because they will not be able to use the compound.

See "Methyl Bromide Update" in Vol. 6, No. 6, of the *Illinois Pesticide Review*.

(Adapted from *The Grower*, November 1993) ▲

CBS Wins Summary Judgement in Alar Case

In September, a federal judge in Spokane ruled that the plaintiffs in a class action suit arising from a 1989 Alar-related *60 Minutes* broadcast cannot prove the broadcast was false, even under their interpretation of its message. Judge William Fremming Nielsen granted summary judgement in favor of the defendants, bringing

the case to a close (unless it is appealed).

See "Alar Lawsuit Presses On" in Vol. 6, No. 6, of the *Illinois Pesticide Review*.

(Adapted from *Pesticide & Toxic Chemical News*, September 22, 1993) ▲

Pesticide Update

The following information provides registration status of particular pesticides and should not be considered as pesticide recommendations by Illinois Extension.

Agronomic

Assure II (quizalofop-p-ethyl), DuPont

This product will be available in limited quantities in 14-gallon mini-bulk and 190-gallon bulk container in IA, IN, IL, MO, OH, and TX for this next season.

Bicep II (metolachlor/atrazine + benoxacor), Ciba

This new formulation (which contains a safener) will be available for use on corn next year in Illinois. It will also be available in liquid bulk and Farm Pak units.

Bullet (alachlor/atrazine), Monsanto

Received approval for use on sorghum grown in MO, NE, and IL. Applied preplant, preplant incorporated, or preemergence.

Condor G (B.t. strain 2348), Ecogen

This new granular formulation recently received EPA registration. Primarily, it will be used on corn to control the European corn borer.

Dual II (metolachlor + benoxacor), Ciba

This new formulation (which contains a safener) will be available for use on corn next year in Illinois. It will also be available in liquid bulk and Farm Pak units.

Force (tefluthrin), Zeneca

The company has deleted from the label the statement "Application of a sulfonylurea herbicide such as Beacon or Accent following application of a soil insecticide such as Force 1.5G may result in crop injury." Also, the label has been expanded to claim control, not suppression, of white grubs and wireworms and control of all cutworms.

Many

Basamid G (dazomet), BASF

This granular soil fumigant now comes in a smaller, 7-1/2-pound, shaker box that will treat 600 to 1500 sq ft. New uses for the product include fumigating seedbeds for Christmas tree production, sod production, turf renovation, fumigating new and reconditioning older ornamental beds, construction and reconditioning golf course greens, and fumigating conifer seedbeds for forestry production.

Bayleton (triadimefon), Miles

Due to the cost of re-registration, use on barley and grasses grown for seed has been deleted.

Imidan 70 WP (phosmet), Gowan

This new formulation recently was introduced by the company.

Larvin (thiodicarb), Rhone Poulenc

A new formulation recently released is a dry flowable, available in water-soluble packets.

Precision (fenoxycarb), Ciba

A new sprayable formulation. It is very effective against whiteflies.

Turf/Ornamental

Chipco Alliette WDG (fosetyl-Al), Rhone Poulenc

Added to this systemic fungicide label is the control of fire blight (on ornamental pears, pyracantha, and hawthorn) and downy mildew (on roses). (*American Nurseryman*, October 15, 1993)

Cycocel (chlormequat), American Cyanamid

Added to their label for this growth regulator, the use on poinsettias of all colors.

Gallery (isoxaben), DowElanco

Added to their label the control of 93 broadleaf weeds and use on 448 field-grown and 236 container-grown species of ornamentals.

(continued on page 4)



Pesticide Update (cont.)

Prism (clethodim), Valent

Recently EPA registered this postemergence grass herbicide for use in Christmas tree farms, annual beds, landscapes, nurseries, greenhouses, cemeteries, and parks. It is formulated as a .94 EC and will be available in quarts and gallons in early 1994. (*Grounds Maintenance*, November 1993)

Ronstar (oxadiazon), Rhone Poulenc

Added to their label, use on conifers in nurseries and landscapes. Also, they have added to their label the control of clover, goundsel, smartweed, and wild oats.

Spinout (copper hydroxide), Griffin

A new root-growth regulator applied to the inside of plastic nursery containers as a root-pruning agent to control root spiraling and promote the development of a fibrous root system.

Snapshot (isoxaben/oryzalin), DowElanco

Added to their label the control of 105 broadleaf and grassy weeds.

Surflan AS (oryzalin), DowElanco
Increased uses on the label now total 208 field-grown and 67 container-grown ornamentals.

XL (benefin/oryzalin), DowElanco
Added to their label, use on black walnut.

Other

Arosurf MSF, Summit Chemical Co.

Due to the cost of re-registration, use of this aquatic mosquito control product will be cancelled.

Dura Guard PT-1325 (chlorpyrifos), Whitmire Research Lab

A microencapsulated formulation to be used on greenhouse ornamentals.

Ethion (ethion), FMC

Due to the cost of re-registration, outdoor ornamental and home grounds uses have been deleted.

Finale/Ignite (glufosinate-ammonium), Hoechst

Received EPA registration to use as a nonselective herbicide on emerged weeds in noncrop areas.

Ornitrol, Avitrol Corp.

Due to the cost of re-registration, use of this bird-control product will be cancelled.

Teknar HP-D (B.t.i.), Zoecon

Due to manufacturing problems, the company has decided to withdraw this formulation from the market.

Zentari WDG (B.t. var aizawai), Abbott

EPA has approved the application to register conditionally this new active ingredient for terrestrial, greenhouse, and aquatic crop uses.

Vegetable/Fruit

Agree (B.t. var aizawai strain GC-91), Ciba

Added to this label the control of rindworm complex and melonworms.

Basicop (copper sulfate), Griffin

Added to their label the use on cherries and the control of *Pseudomonas* on pears.

Lentagran 45 (pyridate), Cedar Chemical

The product is being marketed by Gowan Co. for use as a postemergence herbicide on cabbage.

Malathion (malathion), many

Due to the high cost of re-registration, use on melons, pumpkins, and watermelons is not expected to be supported.

Poast (sethoxydim), BASF

EPA granted a supplemental label to tank mix with Betamix for postemergence weed control on sugarbeets. Do not use with an additional surfactant.

(Unless otherwise noted, adapted from *Agricultural Chemical News*, October and November 1993) ▲

Keeping Us Safe From Cedar

For years, cedar, an aromatic wood, has been used in the form of small blocks and balls to ward off moths from households. However, companies touting the untreated wood's ability to deter moths have drawn the interest of the EPA. Selling cedar as a moth deterrent is a "pesticidal claim," says the agency, and that means companies doing so must register the products as pesticides and meet regulatory requirements.

The Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) specifies these requirements for all pesticides. In addition to requiring registration, the law says that pesticide products must be labeled with ingredient information, toxicity levels, and directions for use.

The EPA has already sent two letters to one company, Seventh Generation, Inc., of Colchester, VT, about its failure to comply with the law. Seventh Generation, which specializes in environmentally correct products, sells cedar blocks for \$10.95 a dozen and currently has an inventory worth \$12,000.

Company officials are flabbergasted by the EPA's attempt to regulate a nontoxic, untreated, natural product such as cedar. The agency's vigilance is especially ironic because mothballs, which contain potentially toxic chemicals, are not considered dangerous as long as they're appropriately packaged.

The EPA says it has plans eventually to exempt cedar and other similar products from the regulations, but it admits the change may take a while to work its way through the bureaucracy. In fact, the EPA's proposed FIFRA exemption for natural cedar pesticides has drawn objections from the Chlorobenzene Producers Association (CPA), Willert Home Products, and Excell Products Corporation.

CPA argues that the EPA needs to regulate cedar products because they may not be effective, they

have a history of marketing problems, and their registration is already streamlined. Willert Home Products based its objection on its conclusion that cedar wood products do not prevent moth damage. Excell Products is opposed to the exemption because it could harm the American consumer and give cedar wood manufacturers an unfair commercial advantage in the marketplace.

(Adapted from *American Nurseryman*, November 1, 1993, and *Pesticide & Toxic Chemical News*, September 22, 1993) ▲

The development and/or publication of this newsletter has been supported with funding from the Illinois Department of Agriculture.



*Rhonda J. Ferree
Extension Horticulturist
Pesticide Applicator Training*

Index of 1993 Issues

- 2,4-D**
 2,4-D Toxicology Review 5:7
 2,4-D's Fate 2:1
 Soybeans and 2,4-D 1:5
- Adjuvants**
 Types of Adjuvants 1:6
- Advertising**
 Exaggerated Claims 5:4
- Containers**
 Bulk Repackagers 5:2
 EPA Proposes Container-Reuse Incentives 5:4
- Editorial Comment**
 Editorial Comment 1:2, 2:2, 3:2, 4:2, 6:2
- Environmental Safety**
 1993 Atrazine Restrictions to Protect Surface Water 1:5
 Concerns About the Risks from Pesticides 7:1
 New Groundwater Monitoring Requirements 5:7
- Food Safety**
 Alar Lawsuit Presses On 6:8
 Apples Residue Data 6:8
 CBS Wins Summary Judgement in Alar Case 7:?
 Concerns About the Risks from Pesticides 7:1
 Delaney Clause 4:5
 Federal Government Urged to Buy Organic Food 6:8
 Food Preparation Removes Pesticide Residues 4:8
 Food Safety Concerns Increasing 4:8
- Misconceptions: Science and the Environment** 5:8
NAS Report on Pesticide in the Diets of Infants and Children 4:1
Pesticide Reforms 6:1
- Groundwater/Surface Water**
 1993 Atrazine Restrictions to Protect Surface Water 1:5
 New Groundwater Monitoring Requirements 5:7
- Hazardous Waste**
 Household Hazardous Collection Site Opened 2:6
- Illinois PAT Update**
 1993-1994 Commercial PAT Clinics 5:5
 Illinois PAT Update 1:5, 2:5
 PAT Clinic Schedule Addition 6:2
 Private PAT Coordinators 5:6
- Labels**
 Proposed Label Changes 6:7
- Legislative Update**
 Delaney Clause 4:5
 Federal Legislative Update 4:6, 6:5
 Illinois Lawn Care Act Update 3:7
 Illinois Legislative Update 4:5, 6:5
 Legislative Alert 3:8
 Legislative Update 1:5, 2:5
 Illinois Pesticide Preemption Challenged 7:1
 Pesticide Reforms 6:1
- Methyl Bromide**
 Methyl Bromide Update 6:6
 Methyl Bromide Tax 7:2
- MSDSs**
 New MSDS Forms Approved 6:7
 New MSDSs Recommended 5:2
- National PAT**
 National PAT meeting in New Orleans 3:6
- NPTN Hotline**
 NPTN Hotline 5:1
 NPTN Report 6:8
- Pesticide Exposure**
 Leather Boot Exposure 6:7
 Pesticide Exposure Studies 1:1
 Pesticide Exposure Summary 5:1
- Pesticide Sales and Usage**
 EPA Report Details '90, '91 Pesticide Sales and Usage 2:6
- Pesticide Update**
 Keeping Us Safe From Cedar 7:5
 Methyl Bromide Tax 7:2
 Pesticide Update 1:3, 2:3, 3:3, 4:3, 5:3, 6:3, 7:3
 Re-registration Update 5:4
 Vinclozolin and Carbaryl Re-registration 6:5
- Recordkeeping**
 Final Rule on Recordkeeping Requirements 3:1
- Worker Protection Standard**
 Worker Protection Standard Update 3:5
- References give issue number and page number for issues 1-7 of *Illinois Pesticide Review*, Volume 6.

The Illinois Pesticide Review



News About Pesticides and Regulations



APR 21 1994

1201 S. Dorner Dr. • Urbana, IL 61801 • (217) 244-4397

Vol. 7, No. 1

AUG 31 1994 April 1994

Update on Worker Protection Standard AG Library



The Worker Protection Standard continues to undergo scrutiny and change. Recent

legislation delays implementation of some but not all of the WPS until January 1, 1995. Other potential changes include a reduction in the worker-training grace period and five-year retaining period, additional early entry exceptions, decontamination-site changes, and a change in the warning sign. Interpretive policy changes are ongoing.

Implementation Delay

Despite continued resistance from the US-EPA and farmworker groups, legislation was enacted in April which delays implementing some of the WPS. The new law provides more time for the agricultural community to learn about the WPS and to prepare for implementation.

The National Association of State Departments of Agriculture (NASDA) had requested that EPA officials delay enforcement of the WPS until October 23, 1995. The NASDA request was based on the

association's assertion of insufficient funds to implement the standard and the requirement that, by the 1995 date, all labeling must be consistent. Rick Perry, commissioner of the Texas Department of Agriculture, told the subcommittee, "We believe that in the interim, training and educational activities can be enhanced, and we would propose that states conduct enforcement monitoring activities to assist producers in preparing for full implementation of the standard."

One farmworker group, the Farmworker Justice Fund, asked President Clinton to strengthen the farmworker protection standards and to implement them as scheduled. The Fund's Executive Director Mike Hancock said in January, "I hope and trust that EPA and the White House will hold firm and implement the standards on time."

The legislative changes only delay implementing some of the WPS. Most of the WPS requirements appear on the labels of the pesticides used on the agricultural establishments where employees work. There are two types of WPS provisions that appear on the label: those that are fully spelled

out, and those that are referred to but not thoroughly described on the label.

During 1994, compliance is required for the WPS requirements that are spelled out on the label. These include the label requirements for personal protective equipment (PPE), the restricted-entry interval (REI), and the requirement for "double notification," if this requirement is on the label.

(continued on page 2)

In This Issue

Update on Worker Protection Standard	1
Editorial Comment	2
Pesticide Update	3
Illinois Legislative Update	7
Illinois Chemical-Drift Complaints Up in 1993	7
Minor-Use Pesticide Research	7
Plantiffs Appeal Alar Rulings	8
Cyanazine Label Changes	8
Pesticide Use on Vegetables	
Widespread	9
Of Food and Fiber and a Fine Old Feast	9
Pesticide-Container Recycling Program	10
Scott To Acquire	
Grace-Sierra	10

Update on Worker Protection Standard cont.

The Illinois Pesticide Review newsletter is sent four to six times per year to Extension personnel, specialists, and others who are interested in the safe and effective use of pesticides. Its primary purpose is to provide concise information on legislation, regulations, and other developments directly impacting pesticide use in Illinois. Please direct comments and suggestions about this newsletter to the Pesticide Applicator Training (PAT) team of Diane Anderson, Rhonda Ferree, Walker Kirby, Phil Nixon, and Bob Wolf.

The information given herein is provided for educational purposes only. Reference to pesticide trade names does not imply endorsement by the University of Illinois, nor is discrimination intended against any product.

Compliance is not required for the "referenced" requirements until January 1, 1995. These requirements include pesticide safety training for agricultural workers and handlers, decontamination sites, notification of workers about pesticide applications, display of information about pesticide applications, emergency assistance, and display of safety poster.

The legislation also provides optional PPE requirements for some irrigation work in 1994 and excludes crop advisors from WPS coverage until January 1, 1995.

Other Potential Changes

In April or May, the EPA plans to reopen for comment two worker-training provisions in the standard: reducing or eliminating the 15-day worker-training grace period and reducing the five-year agricultural-worker-retraining period to two or three years. An agency official announced this plan in discussing results of a January 21 meeting among EPA officials and representatives of the Farmworker Justice Fund.

The agency is still negotiating whether or not to grant an early entry exception to the cut-flower-and-fern industry. Other exceptions the agency is looking at include cotton and irrigation workers. The fund opposes any early entry exceptions.

Fund representatives, during the January meeting, again urged EPA to switch to the skull-and-

crossbones sign for posting. EPA's response was that if the sign provided for in the rule did not work, the matter would be reexamined.

The fund also urged requiring potable water for decontamination. The agency's response was that the matter would be looked at by EPA's Office of Pesticide Programs, Office of Drinking Water, and OSHA.

Interpretive Policy

Hundreds of questions have surfaced from all segments of agriculture concerning interpretation of the standard's provisions. An Interpretive Guidance Workgroup addresses interpretive policy questions. The workgroup has representatives from the Office of Compliance Monitoring, the Office of Pesticide Programs, the Office of General Counsel, the Office of Enforcement, the regions, and state representatives.

States were asked to submit questions through the EPA regional offices. The workgroup screens the questions to determine whether they are interpretive questions or better addressed through other mechanisms and works with the regions to prioritize the questions.

(Adapted from *The Grower*, January 1994; *Pest & Toxic Chem News*, November 17, December 1, 1993, January 5, January 15, and January 26, 1994; and mailings from US-EPA and USDA) ▲

Editorial Comment

Due to an extremely hectic Pesticide Applicator Training schedule, this is the first issue I have been able to produce this year. Therefore, it is rather long, especially the "Pesticide Update" section. In the future, I intend to send out issues every two to three months.

Pesticide Update

The following information provides registration status of particular pesticides and should not be considered as pesticide recommendations by Illinois Extension.

Agronomic

Beacon (primisulfuron-methyl), Ciba

Added to their label the tank mix with Banvel, Buctril, and 2,4-D on corn.

Bladex (cyanazine), DuPont

EPA has accepted label amendments on this herbicide to reduce groundwater contamination. Changes include reduced application rates; establishing a buffer zone around all wells, setback for mixing and loading areas, and a setback from points where field surface water enters streams or rivers.

Bolstar (sulprofos), Miles

Due to the high cost of reregistration, the use on soybeans has been deleted from this insecticide label.

Broadstrike (flumetsulam), DowElanco

Federal registration has been granted for the use of this herbicide on corn (available as Broadstrike plus Dual) and soybeans (available as Broadstrike plus Dual or Broadstrike plus Treflan). (*MSU Pesticide Notes*, January-February 1994)

Concert (trifensulfuron-methyl/chloriminon-ethyl), DuPont

This herbicide is now available in a 1-lb container, which treats 32 acres.

Counter (terbufos), Amercian Cyanamid

Added to their label the control of chinch bugs.

DuPont

The company has developed a sulfonylurea herbicide premix for postemergence use only on soybeans that are sulfonylurea resistant STS soybeans. The new herbicide is named Synchrony STS. It is a combination of 18.7% chlorimuron-ethyl and 6.3% thifensulfuron-methyl (3:1 Classic:Pinnacle).

Dyfonate II (fonofos), Zeneca

The product will be widely available as a 15G formulation in 1994. It was previously sold only as a 20G.

Furadan (carbofuran), FMC

Granular carbofuran for corn or sorghum could not be shipped or sold by FMC after September 1, 1993. It can be sold and used by distributors, dealers, and growers until August 31, 1994, to clear out the pipeline. (Adapted from *Pest. & Toxic Chem. News*, October 6, 1993)

F-8426, FMC

A new herbicide that works on contact to control broadleaf weeds in cereals.

Force (tefluthrin), Zeneca

New packaging for this granular corn insecticide will include heavy-duty plastic bags for the 1994 season. It will also be formulated on clay granules.

Fusilade DX (fluaziprop/atrazine), Zeneca

The DX stands for double strength - a new formulation with twice the concentration of Fusilade 2000.

Gramoxone Extra (paraquat), Zeneca

Received an EPA label to tank mix with 2,4-D ester for use on soybeans as a preplant application.

Guardsman (dimethenamid/atrazine), Sandoz Agro

This combination premix formulation (Frontier plus atrazine) is being introduced for use on corn. Applied early preplant, preplant incorporated, preemergence, or early postemergence. May be tank mixed with Accent or Bladex on corn.

ICI Seeds

The company plans to introduce STS (sulfonylurea tolerant) soybeans into their line next spring. A limited supply is available for the 1994 season.

(continued on page 4)

Pesticide Update (cont.)

Option II (fenoxaprop-ethyl), Hoechst

Added to their label the tank mix with Galaxy for use on soybeans.

Pursuit (imazethapyr), American Cyanamid

Added to their label the tank mix with 2,4-D.

Pursuit Plus (imazethapyr/pendamethalin), American Cyanamid

Received an EPA label to use on corn that is tolerant to Pursuit (which is referred to as IMI corn) and is available through several seed corn companies. Added to their label the tank mixture with liquid fertilizer.

Select (clethodim), Valent

Added to their label the tank mix with Pursuit on soybeans.

Zeneca

The company has improved the formulation of their thio-carbamate herbicides to meet voluntary fire codes. The flash points of Eradicane, Sutan, Eptam, Tillam, and Ro-Neet have been raised above 200 degrees. Work is being done on other Zeneca products to raise their flash points.

Many

Chipco Sevin 80 (carbaryl), Rhone Poulenc

The company announced that the product will be available in water-soluble packaging early this year.

Dr. Biosedge (Puccinia canaliculata), Tifton Innovation Corp

EPA has approved the application to register this new active ingredient for use on all crop areas to control yellow nutsedge.

Entry (bentazon), Sostram Corp

The name of this product has been changed from Trophy.

Funginex (triforine), Biologic Inc.

Added to their label the application by air.

Furadan 15G (carbofuran), FMC

This product will remain available until 8-31-94. With FMC no longer selling the product (since 9-93), the supply in the channels of trade must be used by 8-31-94. Further reduction in label uses will be phased in until the only remaining ones are cucurbits, pine seedlings, and cranberries. Furadan 4F will still be available for use on corn.

Lindane (lindane), Rhone Poulenc

Due to the high cost of reregistration, they have requested to delete from their label the use on apples, apricots, asparagus, avocados, cherries, grapes, mushrooms, nectarines, peaches, ornamentals, many animals, and in or around any structure.

Magic Circle Deer Repellent (bone oil), J C Ehrlich Company

This product was canceled due to the high cost of reregistration. (MSU Pesticide Notes, November/December 1993)

Metasystox-R (oxydemeton-methyl), Miles

Due to the high cost of reregistration, the company has requested EPA to voluntarily cancel all uses of this insecticide.

Ridomil 2E (metalaxyl), Ciba

Added to their label the tank mix with copper fungicides when used as a foliar spray.

Tersan 1991 (benomyl), DuPont

The company has requested voluntary cancellation of the registration of this product. Existing inventories may be used.

Truban 5G (etridiazol), Grace Sierra

New packaging is now available in 40-lb. drums or 40-lb. foil-lined bags.

Ornamental/Turf

Aliette (fosetyl-Al), Rhone Poulenc

New uses for this fungicide include the use on field-grown, landscape, and container-grown roses to control downy mildew.

(continued on page 5)

Pesticide Update (cont.)

Award (penconazole), Ciba

This product is now available in a 1-gal., resealable flip-top jug. (*American Nurseryman*, December 15, 1993)

Back-Off I (Metarhizium anisopliae), Eco Science

The company plans to register this new biopesticide for the control of whiteflies and aphids on greenhouse-grown ornamentals and vegetables. Also, it is being evaluated for nursery and other crops.

Barricade 65 WG (proflumicarb), Sandoz

Label changes included the approval on more than 100 species of ornamentals, as well as on bentgrass and golf tees. Also, the height restriction on turf and time of application has been removed. It can now be used on all areas of the golf course except the putting greens.

Basamid (dazomet), BASF

Added to their label for this soil fumigant the use on new or reconditioned ornamental seedbeds.

Biosys

The company is introducing a new nematode-based product called Vector WG to control white grubs on turf. This product is based on a new species of nematode, *Sternenema glaseri*.

Calo-Clor & Calo-Gran (mercuric chloride), Grace Sierra

This mercury based fungicide was

voluntarily canceled. These products are used only on golf course greens, tees, and aprons to control snow mold. (*MSU Pesticide Notes*, January-February 1994)

Consyst (chlorothalonil/thiophanate), Regal Chemical

Received EPA registration to use on turf and ornamental trees and shrubs.

Dimension (dithiopyr), Monsanto and Rohm & Haas

Rohm & Haas plans to purchase Monsanto's pyridine pesticide business.

DM 896 (2,4-D/MCPP), PBI Gordon

A formulation is being introduced as a turf herbicide to control broadleaf weeds.

Krenite S (fosamine ammonium), DuPont

Due to the high cost of reregistration, use on pine and conifer plantations was dropped from this label. Existing stocks may be sold until March 31, 1995; they may be used until exhausted. (*American Nurseryman*, December 15, 1993)

Phyton 27 (copper sulfate pentahydrate), Source Technology Biologicals

Added to their label the control of powdery mildew on poinsettias and added the use on woody ornamentals.

Precision (fenoxycarb), Ciba

An insect growth regulator recently registered for use on ornamentals to control whiteflies, scales, fungus gnats, and shore flies. Applied as a foliar spray or as a soil drench.

Pre San G (bensulide), PBI Gordon Corp.

A preemergence herbicide formulated as a 7G and 12.5G for use on turf, dichondra, groundcovers, and ornamental sites. (*American Nurseryman*, December 15, 1993)

Protect (mancozeb), W.A. Cleary

A new formulation being introduced into the turf and ornamental markets.

Sentinel 40WG (cyproconazole), Sandoz

Received EPA registration for use on turf to control several diseases. It is available only in water-soluble packaging.

Tri Power Dry (MCPA/mecoprop/dicamba), Riverdale Chemical Co.

Available in water-soluble packets, this new dry formulation has been registered with EPA for use on turf.

Zyban (zyban), Grace-Sierra

A new registration has been granted by the EPA after this product was canceled due to a communication oversight. Inventories of the product purchased before cancellation may still be used. (*American Nurseryman*, December 15, 1993)

(continued on page 6)

Pesticide Update (cont.)

Other

Armor (cypromazine), Ciba

A 5% liquid formulation recently registered for use in mushroom houses, incorporated into the compost to control sciarid fly larvae.

DowElanco

The company has sold its A-Pest growth regulator, Pipron fungicide, and Sonar aquatic herbicide to Se Pro of Carmel, IN. Se Pro also has exclusive distribution rights for Rubigan EC fungicide. The products will be available in 1994 under the Se Pro label with the current distribution system.

Hoechst/Schering

The agricultural-chemical joint venture of these two companies will now be called Agr Evo.

Ohmicron

The company has developed a rapid analysis to be used for determining the presence of chlorpyrifos in water.

Rhone Poulenc

The company has made available its Gel Tec gel formulation technology to Roussel Uclaf to use with certain insecticide products sold by Hoechst Roussel.

Simazine (simazine), many

The use of this product in swimming pools to control algae will be voluntarily canceled by the registrants.

Spike (tebuthiruron), DowElanco

Deleted from their label the use on ditchbanks.

Valent

The company has sold its rights to its X-77 Spreader to Loveland Industries.

Vegetable/Fruit

Ambush/Pounce (permethrin), FMC/Zeneca

Due to the high cost of reregistration, they will delete from their label the use on cherries and watercress.

Bio-Save 10 (bacteria), Eco Science

Based on a naturally occurring bacteria, this new biofungicide is for control of post-harvest diseases of apples and pears.

Bravo (chlorothalonil), ISK Biotech

Due to the high cost or reregistration, they will delete from their label the use on green onions, shallots, and leeks.

Dipel E.S. (B.t.), Abbott

Added to their label the control of the peach twig borer.

Dormex (hydrogen cyanamide), SKW Trostberg

EPA conditionally registered this plant growth regulator on grapes. It has a 130-day preharvest interval.

Lorsban 50W (chlorpyrifos), DowElanco

Added to their label the control of cabbage aphid, beet armyworm, and imported cabbageworm.

No Mate TPW Spiral (pheromone), Ecogen

The company has received EPA registration for this mating-disruption pheromone for use on tomatoes to control the tomato pinworm.

Ohmicron

The company has developed a new Paraquat rapid-assay detection kit. It is used to detect paraquat in fruits and vegetables.

Phosdrin (mevinphos), Amvac

The manufacturing is voluntarily canceling many of the uses on the label. Uses remaining will be grapes, mustard greens, parsley, peas, broccoli, Brussels sprouts, cauliflower, collards, kale, lettuce, and melons.

Terraclor (PCNB), Uniroyal

A flowable formulation is being introduced this spring. It will be packaged in 2.5-gal. jugs, with its initial registration on beans and cole crops.

(Rhonda Ferree, Extension horticulturist; unless otherwise noted, adapted from *Agricultural Chemical News*, December 1993, January, February, and March 1994)

Illinois Legislative Update

A supplemental appropriation bill, House Bill 4, has been passed by the Senate to deal with problems associated with flooding in Illinois during the summer of 1993. Included in the package is a \$500,000 appropriation from the Agricultural Pesticide Control Act Fund of pesticide clean-up expenses associated with the flooding. The House has not yet acted on the bill.

House Bill 1479 (Lang/Mahar) has been amended and passed by the Senate. The bill now amends the Pesticide Act to provide that a handbook or manual of guidelines and procedures for addressing pesticide contamination at agrichemical facilities shall be available no later than July 1, 1995, rather than April 1, 1993.

Governor Edgar presented his Fiscal Year 1995 Budget Address to the General Assembly on March 2. Within it, the Department of Agriculture has budgeted an additional \$300,000 in the Pesticide Control Fund, allowing the department to increase its efforts in the areas of the state's plant-nursery inspection program, an expanded pesticide-container recycling initiative, trapping and control of gypsy moths, and cleanup of unwanted farm chemicals.

(Adapted from *Growing Trends*, January and April 1994) ▲

Illinois Chemical-Drift Complaints Up in 1993

The state agriculture department logged 97 complaints, compared to 54 in 1992, said Warren Goetsch, environmental specialist with the Illinois Department of Agriculture. Thirty-two warning letters were written and \$1,100 in fines were assessed in 1993.

"From the department's perspective, 97 may not be a large number. But it's 97 more than we'd like to have," he said. "The question is how many incidents go unreported? How many are either settled between the applicator and individual, or how many people are unaware of the complaint process?"

The wet 1993 spring forced farmers to apply farm chemicals during a relatively short period of time. "There weren't the usual number of days available to make the applications in ideal conditions," he said. "It's certainly not a defense, but it's an explanation."

"Agriculture-related pesticide drifts are continuing to increase, and I don't see that trend changing," Goetsch said. "It could be turned around as we get newer products, better technology in drift control."

(Adapted from *The News Gazette*, January 1994) ▲

Minor-Use Pesticide Research

The US Congress has approved USDA funds earmarked for the Interregional Research Project No. 4 (IR-4). Since its inception in 1963, IR-4 has been instrumental in championing the cause of minor-use pesticides. Without the program's assistance, which includes performing research trials and assembling registration packages, the high cost of minor-use pesticide registration would lead to the cancellation of many minor-use products.

The USDA special research grant for the 1994 IR-4 program is \$6.75 million, almost double the 1993 figure. Combined with the Agricultural research service monies and other Regional Research funds, the minor-use pesticide program's budget will approach \$10 million for 1994.

(Adapted from *American Nurseryman*, January 15, 1994) ▲



Plantiffs Appeal Alar Rulings

The plaintiffs in the product disparagement lawsuit arising from the 1989 Alar-related "60 Minutes" broadcast, "A Is for Apple," have appealed a pair of federal district court rulings granting judgments in favor of both the CBS and the Natural Resources Defense Council (NRDC).

Appellate briefs were filed in early February. Among other changes, the plaintiff's attorneys argued that the court erred by mischaracterizing the central message of that broadcast.

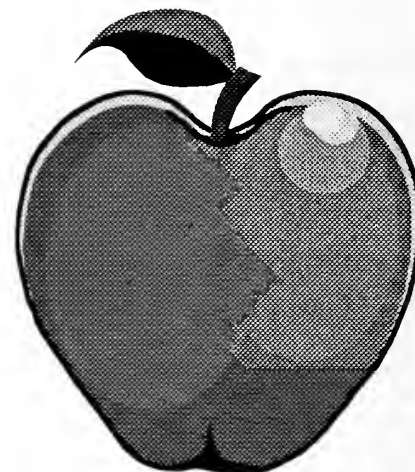
The appeal also includes an earlier ruling dismissing NRDC from the case. According to the plaintiffs, CBS, NRDC, and a pub-

licity firm hired by NRDC conspired to put on the broadcast as a means of drawing attention to NRDC and raising funds for the organization. Fred Altshuler, an attorney representing NRDC, says this theory is "ridiculous."

The hearing for the case probably will be held in Portland, OR. No hearing date has been set, nor is one expected until after all briefs have been filed, making it unlikely that the case will be heard before next year.

See "Alar Lawsuit Presses On" in Vol. 6, No. 6, and "CBS Wins Summary Judgement in Alar Case" in Vol. 6, No. 7, of the *Illinois Pesticide Review*.

(Adapted from *Pest. and Toxic Chem. News*, November 10, November 17, 1993, and February 9, 1994) ▲



Cyanazine Label Changes

The US-EPA has accepted a number of proposed voluntary label amendments for the pesticide cyanazine (trade name, Bladex) as an interim measure to help reduce potential contamination of ground and surface water. Cyanazine is primarily used to control broad-leaf weeds and some grasses in corn, cotton, sorghum, wheat fallow, and other crops.

The label amendments include:

- A reduction in the application rate from 7.2 to 6.5 pounds of

active ingredients per acre per year.

- No more than 3 pounds per acre per year will be allowed on highly erodible land if residue cover is less than 30 percent.
- Cyanazine may not be applied within 50 feet of wells or within 66 feet of the points where field surface water runoff enters perennial or intermittent streams and rivers, or within 200 feet of lakes and reservoirs.

- When mixing and loading, operators must observe a 50-foot setback from perennial or intermittent streams and rivers, lakes, and reservoirs.

DuPont, manufacturer of cyanazine, also proposed some voluntary educational and surface-water monitoring programs.

(EPA Press Advisory, November 5, 1993) ▲

Pesticide Use on Vegetables Widespread

Pesticide use is widespread in vegetable production, according to data from USDA's Pesticide Data Program. Results were discussed at USDA's annual Agriculture Outlook conference.

John Love, an agricultural economist with USDA's Economic Research Service, explained that pesticide use varies, depending on many factors, including the intended market for the crop. He said that most increases in prosperity in produce production come from higher yields, which are closely tied to chemical pesticide and fertilizer use.

Results from the study include the following.

- Insecticide use on 93% of all fruit acreage and 78% of vegetable acreage
- Fungicide use on 81% of fruits and 56% of vegetables
- Herbicide use on 76% of vegetables and 63% of fruits
- Growth-regulator use on 17% of total vegetable acreage, including:

43% of potatoes
34% of peppers
37% of fresh tomatoes

- On fresh-market vegetables,
 - insecticide use on all virtually all celery
 - insecticide use on 97% of head lettuce and eggplant
 - fungicide use on 98% of fresh celery and 86% of fresh tomatoes.
- Methyl bromide use on 61% of Florida's fresh-market tomatoes, while none is used on California's processing tomato acreage.

Stating that chemical pesticides "have been an important input to production," Love cautioned that estimates of the impact on vegetable yields from a substantial reduction in pesticide use are likely to contain a high degree of uncertainty. He called for more research in this area as "policies to change vegetable production practices are debated." Love stressed that the vegetable industry's future productivity hinges on con-

tinued access to chemical pest control or alternatives.

The number of pesticides registered in this industry have decreased during the pesticide reregistration process. Paul Schwartz, USDA's chief scientist for minor uses, called the minor-use problem "a crisis."

Daniel A. Botts, director of environmental and pest-management issues, Florida Fruit and Vegetable Association, said the legislation aimed at assisting minor-use pesticide reregistrations is bogged down by Congressional efforts to reform pesticide and food safety laws.

Copies of the *Vegetables and Specialties Situation and Outlook* (TVS-261) can be ordered by calling (800)999-6779 or (703)834-0125.

(Adapted from *Pest. & Toxic Chem. News*, December 8, 1993, and *The Grower*, January 1994)



Of Food and Fiber and a Fine Old Feast



TOMATOES

Gardens bring back favorite memories of childhood.

Picking succulent sweet corn,

cutting a rib of rhubarb to chew on, shucking peas with Grandma, and crawling through the asparagus patch - all were fond pastimes

of my youth before the hoe fit my hand. Nothing tasted better than those home-grown, home-cooked meals.

Today, it must be 8 miles to the closest garden as big as Gramps's. In-between, there are seven grocery stores within a mile of home. Then add in the 24-hour convenience shops and 10 cloth-

ing stores, all within the same mile. As a result, it shouldn't surprise anyone that the majority of people don't remember it requires soil, water, and labor to produce food and fiber.

(Chris Williams, *Soil and Water Cons. News*, Winter 1992 via the *LABEL*, Purdue Pesticide Programs, April 1993)



Pesticide-Container Recycling Program

Pesticide container recycling programs will be conducted at 69 locations in Illinois this year. This program provides an opportunity to dispose of plastic pesticide containers in an alternative method. Choosing recycling as the disposal option protects the environment and decreases waste because the plastic is reused. This program is an excellent way to demonstrate agricultures' commitment to protecting the environment.



The program is open to all users of agrichemicals. Before the container is delivered for recycling, the following must be done.

1. Properly rinse. This is essential. Rinsing is most effective when done at the time of application. Any container that is not properly rinsed and free of residue will be rejected and sent home with the person who delivered it, who will be responsible for proper disposal according to the label. Two procedures are effective for proper rinsing: pressure-rinsing and triple-rinsing.
2. Remove booklets, labels, and foil seals.

3. Allow container to dry.
4. Store in a clean, dry place.

All collection sites are listed in a brochure available from the Illinois Department of Agriculture (IDA). The program is sponsored by

- Illinois Fertilizer and Chemical Association
- Cole Grower Service
- Grower Service Corporation
- Illinois Department of Agriculture
- Growmark, Inc.
- Agricultural Container Research Council (ACRC)

(Adapted from IDA's brochure detailing the program) ▲

Scott To Acquire Grace-Sierra

In a move that will create the world's largest lawn and plant products company, the Marysville (OH)-based O.M. Scott and Sons Co. has agreed to acquire Grace-Sierra Horticultural Products Co., of Milpitas, CA, from a subsidiary of W.R. Grace & Co. and other investors. The \$100-million transaction was effective December 16, 1993.

Under the terms of the merger, Grace-Sierra distributors will continue to sell the current Grace-Sierra product line. Scott's products will continue to be sold and shipped direct.

(Adapted from *American Nurseryman*, February 15, 1994) ▲

The development and/or publication of this newsletter has been supported with funding from the Illinois Department of Agriculture.

*Rhonda J. Ferree
Extension Horticulturist
Pesticide Applicator Training*

The Illinois Pesticide Review



News About Pesticides and Regulations

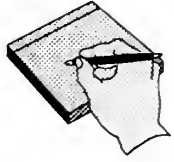


1201 S. Dorner Dr. • Urbana, IL 61801 • (217) 244-4397

Vol. 7, No. 2

June 1994

Proposed Revisions to Federal Recordkeeping Requirements



The Agricultural Marketing Service, United States Department of Agriculture, proposes to revise its regulations governing recordkeeping of federally restricted use pesticides (RUP) by certified applicators. The regulations were published April 9, 1993 and became effective May 10, 1993. Since that time, issues have been raised regarding the regulations. A lawsuit was filed which challenged the substance of limited portions of the regulations. Proposed changes include the following.

The definition of "medical emergency" was criticized as being too restrictive and could hinder the medical treatment by licensed health care professionals of an individual(s) who may have been exposed to a federally RUP. The proposal amends the definition of medical emergency as "a situation that requires immediate medical treatment or first aid."

The definition of "licensed health care professional" was also questioned. Specifically questioned was whether individuals certified only to provide first aid or CPR are included in the definition. The proposal clarifies the definition to read: "a physician, nurse, emergency medical technician, or other qualified individual,

licensed or certified by a State to provide medical treatment."

Currently spot applications can be recorded without a specific location for each spot application. However, complaints state that the specific location could be important for the purpose of providing first aid or medical treatment. Therefore, the proposal deletes spot application recording exemptions.

It is proposed to reduce the time for making an official record from 30 days to 7 days.

Questions have been raised concerning the availability of records to facilitate medical treatment. The proposal reads that the attending licensed health care professional, such as a registered nurse, may determine that the pesticide record information will be necessary to treat the patient, and instruct someone under his/her direction, to obtain the record information.

Under the current regulations, licensed health care professionals may release record information only when necessary to provide medical treatment or first aid to an individual who may be been exposed to the RUP for which the record is maintained. In order to clarify the circumstances under which the RUP information can be utilized and released, USDA pro-

poses to allow medical professionals to report incidents (1) to the local poison control centers and (2) to the proper State or county authorities.

USDA is proposing to change the penalty section so that the Administrator would have discretion to reduce the penalty for a second violation of the regulations to less than \$1,000 if it was determined that the certified applicator made a good faith effort to comply with the regulations.

Comments on the above proposals must be received on or before June 6, 1994. Written comments concerning this proposal should be sent to Bonnie L. Poli, Docket Manager, USDA-AMS, Science Division, 8700 Centreville Road, Suite 200, Manassas, Virginia 22110.

(Adapted E-mailing from John Impson, PAT program leader, USDA) ▲

In This Issue

Proposed Revisions to Federal Recordkeeping Requirements . 1
Editorial Comment 2
Pesticide Update 3
Cabinet Status for EPA 4
Illinois Legislative Update 4

The Illinois Pesticide Review newsletter is sent four to six times per year to Extension personnel, specialists, and others who are interested in the safe and effective use of pesticides. Its primary purpose is to provide concise information on legislation, regulations, and other developments directly impacting pesticide use in Illinois. Please direct comments and suggestions about this newsletter to the Pesticide Applicator Training (PAT) team of Diane Anderson, Rhonda Ferree, Walker Kirby, Phil Nixon, and Bob Wolf.

The information given herein is provided for educational purposes only. Reference to pesticide trade names does not imply endorsement by the University of Illinois, nor is discrimination intended against any product.

Correction

The April 1994 issue of the *Illinois Pesticide Review* contained an error in the "Pesticide Update" section. The common name for Fusilade DX is fluazifop not fluaziprop/atrazine.

Editorial Comment

The Pesticide Applicator Training (PAT) team at the University of Illinois has four full time specialists. The following shows how responsibilities are split. Please direct questions and comments pertaining to PAT to the appropriate person.

Media Production Coordinator:
Rhonda Ferree (217)244-4397

Collect and organize newsletter information and insure its timely publication. Coordinate and oversee production of manual, slide set, video, and other publications. Coordinate radio and television programs. Take leadership for the Worker Protection Standard.

Federal, State, Local Coordinator:
Bob Wolf (217)333-9418

Represent the PAT program through correspondence and meeting participation. Interpret, circulate, and file correspondence with the PAT program. Seek and order useful materials from other states. Work with groups on pesticide safety.

Statewide Extension Coordinator:
Diane Anderson (217)333-4425

Coordinate the private PAT program through determining needs

and developing ways of meeting those needs. Coordinate test production with Illinois Department of Agriculture (IDA). Take leadership for Federal Recordkeeping requirements.

Commercial Clinic/Accounting Coordinator:
Phil Nixon (217)333-6650

Plan commercial PAT clinics and coordinate them. Work with the northeastern Illinois PAT team to answer their needs. Coordinate acquisition, reprinting, and marketing of PAT study materials. Maintain and monitor PAT accounts. Prepare grant proposals, state and federal reports, and other reports and summaries.

NOTE: I will be on maternity leave from May 16 to August 1. Please redirect inquiries to Bob Wolf. Thank you. (Rhonda J. Ferree, Extension Horticulturist)



Pesticide Update

The following information provides registration status of particular pesticides and should not be considered as pesticide recommendations by Illinois Extension.

Agronomic

Avenge (difenzoquat), American Cyanamid

Added to their label the use on a number of new varieties of wheat and barley.

Comite II (propargite), Uniroyal

A new insecticide formulation for use on corn. It is available in 2.5 gallon jugs or 30 gallon drums.

Karmex DF (diuron), DuPont

Due to the high cost or re-registration, the company is expected to delete the use on oats and bermudagrass from their label.

Option II (fenoxaprop-ethyl), Agr Evo

Added to their label the tank mix with Galaxy for use on soybeans.

Surpass EC (acetochlor), Zeneca

Received EPA registration for use on corn to be applied preemergence, or up to 30 days prior to planting. It may also be shallow incorporated. It is combined with the corn crop safener dichlormid. It will be available in 2 1/2 gallon jugs and in 110 gallon mini bulk units. Surpass 100 (a premix of Surpass and atrazine) is also expected to be registered this year and a premix with Eradicane by next year.

Whip 360 (fenoxaprop-ethyl), Agr Evo

Added to their label the tank mix with Reflex 2LC.

Many

Demon TC (cypermethrin), Zeneca
Received EPA registration to be used in foam applications.

Metasystox-R (oxydemeton-methyl), Miles

EPA has received a request from the manufacturer to voluntarily cancel their registration for all their products containing this active ingredient.

Turf/Ornamental

Hormodin (IPA), Merck

Due to the high cost of reregistration, the company is dropping this growth regulator from their line. The two year supply in inventory has been sold to EC Geigor Inc. of Harleysville PA. Once that is depleted the product will no longer be available.

Structures

Arthitrol (chlorpyrifos), Avitrol Corp.

This new ant and roach bait was recently registered by EPA.

Assault (bromethalin), Purina Mills

A new rodenticide bait recently introduced to control rats and mice.

Perimpak (lambda-cyhalothrin), Zeneca

Received an EPA registration for the control of outdoor perimeter insect pests in food handling areas. Available in water soluble packets.

Saga (tralomethrin), Roussel Uclaf

The company has introduced a new formulation for pest control operators called Saga Multi-Purpose Residual Spray (MRS). It is a ready to use product for the control of roaches, ants, spiders, ticks, and fleas.

Tempo 0.1% dust (cyfluthrin), Miles

A new formulation recently received EPA registration which is used as a crack and crevice treatment to control cockroaches.

Torpedo (permethrin), Zeneca

Received an EPA label to use for termite control applied in foam.

Vegetable/Fruit

Guthion 2L and 2S (azinphos-methyl), Miles

Due to the high cost of re-registration, the company will delete from their label for these two formulations the use on pepper.

Rally (myclobutanil), Rohm & Haas

The company has introduced a new packaging concept designed to keep the water soluble pouches dry and in good condition. A transparent zip-seal overlap will replace the foil bag that was previously used.

(Rhonda Ferree, Extension horticulturist; unless otherwise noted, adapted from *Agricultural Chemical News*, May 1994) ▲

Cabinet Status for EPA

An initiative to establish a cabinet-level Department of Environmental Protection has been under consideration in congress for about a year. Although the Senate passed a bill (S. 171) to elevate the United States Environmental Protection Agency (US-EPA) to cabinet status on May 4, 1993, the House version (H.R. 3425) has been the subject of much debate.

The controversy centers around several items, including:

- a proposal to abolish the White House Council on Environmental Quality (CEQ) and give its responsibilities to the new Department,
- the efforts of several members to use the bill as a vehicle to rewrite environmental policy,
- an amendment, introduced by Rep. John Mica (R-FL), which would require EPA to perform a cost-benefit analysis and risk assessment for all proposed regulations,
- renaming the US-EPA the Department of Environmental Protection, and
- creating within the Department a Bureau of Environmental Statistics and an Office of Environmental Justice.

On November 20, the House passed a separate bill (H.R. 3512) introduced by Rep. Gerry Studds (D-MA), which eliminated the CEQ. A companion measure (S. 1545) was introduced in the Senate by Sen. Reid (D-NV). Those in favor of keeping the CEQ asserted that abolishing the office would diminish the

Administration's power to enforce environmental laws.

The amendment requiring that cost-benefit analysis and comparative risk assessment be applied to all EPA regulations is now being debated. There is concern by many that application of a blanket formula to all environmental regulation would be problematic because many bills affecting environmental regulation (e.g. the Clean Water Act, FIFRA, the Clean Air Act, Superfund) have different cost-benefit and risk assessment formulas. Proponents of the amendment say that risk assessment is necessary to prioritize environmental problems and reduce the economic impact of environmental regulations on states and localities.

Creating an Office of Environmental Justice is meant to reduce the impact of environmental regulations on minorities. The Bureau of Environmental Statistics would coordinate data collection.

Floor action on the House version of the bill began on February 2. The Department of Environmental Act passed by the Senate last year was amended (95-3) to require EPA to estimate the risks to health and environment, and the costs of implementation and compliance associated with all final environmental, health, and safety regulations. Furthermore, the amendment requires "comparative analysis of the risk addressed by the regulation relative to other risks to which the public is exposed."

(Adapted from WSSA Newsletter, April 1994) ▲

Illinois Legislative Update

Highland Park, Illinois requires a commercial pesticide license prior to applying pesticides to vegetation within the city limits. The application form requires a license fee, license or permit bond, and proof of updated IDA applicator and operator licenses.

The following bills were introduced into the Illinois House of Representatives this spring.

H.B. 3270 (Schoenberg) amends the Plant and Pesticide Act to delete language preempting home rule powers and prohibiting local regulation of pesticides. The bill was signed into law last August 13 by Governor Edgar.

H.B. 2564 (Granberg) amends the law to exempt certain organizations that sell Christmas trees for charitable purposes from payment of nursery dealer's certificate fees. The fees currently help offset the costs associated with inspections meant to help control the spread of the pine shoot beetle. (Adapted from *The Landscape Contractor*, May 1994 and *Growing Trends*, May 1994) ▲

The development and/or publication of this newsletter has been supported with funding from the Illinois Department of Agriculture.

Rhonda J. Ferree

*Rhonda J. Ferree
Extension Horticulturist
Pesticide Applicator Training*

The Illinois Pesticide Review



News About Pesticides and Regulations



1201 S. Dorner Dr. • Urbana, IL 61801 • (217) 244-4397

MAY 17 1995

AG Library

Vol. 8, No. 2

May 1995



I attended the 1995 AAPCO (American Association of Pesticide Control Officials) spring meeting in Arlington, VA, in March.

I came away from this very informative meeting with many thoughts and ideas. There were speakers from industry, state lead agencies, extension, government, and private citizens.

Dale Moore, legislative director for the House agriculture committee, discussed the pesticide process on "the hill." He mentioned many pesticide-related bills they hoped to work through the system, but he was not optimistic that they would all get through this session. The major discussion pertained to block grants. Congress and state governors like block grants because they feel it gives control back to the states. The pesticide control officials were adamantly against block grants. They feel that if pesticides are only part of the big pie, that those funds could be lost and go to some other program.

Richard Kirchhoff and Mark Nestlan spoke on behalf of NASDA (National Association of State Departments of Agriculture). Current focus in Washington ap-

Synopsis of AAPCO Meeting

pears to be on the farm bill, but WPS and recordkeeping are still in the spotlight. They felt that the farm bill will be the focus in Congress for most of May. Hopes on "the hill" are to move the farm bill out of the House in August. After that happens, pesticide reform is high on the agenda, including FIFRA, minor crops, Delaney, wetlands, and water-quality issues.

Lynn Goldman, Assistant Administrator for the US-EPA Office of Prevention, Pesticides, and Toxic Substances, was the keynote speaker. Her focus was on President Clinton's charge to them. Vice-President Gore has asked them to "streamline" programs and find cheaper and smarter ways to achieve environmental protection. To do this, they need to "reinvent government" through two areas: customer service and partnerships. President Clinton asked agencies to address customers on all levels, from the consumer to the farmer. EPA feels they need to form more partnerships because they cannot accomplish environmental protection on their own. As part of regulatory reinvention, President Clinton asked all agencies to review all laws in the federal register by June 1 to make sure they are still applicable and make sense.

Dr. Goldman also mentioned other issues such as reregistration status, USDA partnership, IPM goals, food safety issues, labeling problems, and WPS.

To me, the most interesting speech was given by Dr. John Impson, national program leader for PAT, USDA. He outlined the benefits of pesticide education programs. All his points are outlined in a summary report titled "Cooperative Extension System Educational Program on Pesticides." If interested, contact Rhonda Ferree for a copy. ▲

In This Issue

Synopsis of AAPCO Meeting	1
National PAT Conference	2
Pesticide Update	3
Federal Legislative Update	6
Pesticide Recordkeeping	
Changes	6
Illinois Legislative Update	7
Pesticide Containers Recycled	7
Delaney Clause	8
Triazine Review	8
SUPPLEMENT	WPS 1&2

College of Agriculture, University of Illinois at Urbana-Champaign, Urbana Illinois
State / County / Local / U.S. Department of Agriculture Cooperating

The Illinois Cooperative Extension Service provides equal opportunities in programs and employment.

National PAT Conference

The Illinois Pesticide Review newsletter is sent four to six times per year to Extension personnel, specialists, and others who are interested in the safe and effective use of pesticides. Its primary purpose is to provide concise information on legislation, regulations, and other developments directly impacting pesticide use in Illinois. Please direct comments and suggestions about this newsletter to the Pesticide Applicator Training (PAT) team of Rhonda Ferree, Phil Nixon, Susan Penix, and Bob Wolf.

The information given herein is provided for educational purposes only. Reference to pesticide trade names does not imply endorsement by the University of Illinois, nor is discrimination intended against any product.

The Fifth National Pesticide Applicator Training and Certification Workshop was held April 10 to 13 in San Diego, California. Representatives from Illinois included Rhonda Ferree, Bob Wolf, Phil Nixon, Susan Penix, and Marshal McGlamery. Many pertinent issues were discussed, including PAT, IPM, risk assessment, and computer technology.

Rhonda Ferree's take-home message

The most interesting session to me was "The Dazzling Impact of Computer Technology on Pesticide Applicator Certification and Training." Our own Bob Wolf highlighted how Illinois commercial PAT programs are conducted with computers, not slide trays. I came away with information on Internet servers I was unaware of that will greatly help me in the future. Internet servers I learned about include EXTTOXNET, WPS-forum, and PAT Gophers. I think Illinois can do more in the future to put our materials and information

on an Internet server. What do you think?

Bob Wolf's take-home message

I was also impressed with the computer technology associated with PAT. In addition to what Rhonda discussed, I was very interested in the work being done at Texas A&M with the compressed video and distance education programming. It was also very interesting to me to visit the various agricultural enterprises in CA. Pesticide concerns are definitely very different out there.

Susan Penix's take-home message

After reviewing other state PAT programs, it became clear that Illinois has an "exemplary program." I didn't come across any specialists, training materials or history to equal ours. It's been a real honor to be associated for this short time with all of you and I will continue to follow the examples you have taught me by your professionalism. (Susan is leaving us for a position with private industry. We wish her the best. In the short time she was here, she contributed greatly to our program.)



WORKER PROTECTION STANDARD SUPPLEMENT

WPS Amendments

As was mentioned in the January 1995 issue of the *Illinois Pesticide Review*, the EPA proposed five changes to the Worker Protection Standard. Many comments were received on these proposals. Final actions were filed on April 27 and modify the 1992 WPS as follows:

Training Requirements. Beginning on January 1, 1996 employers must provide brief pesticide safety information to untrained agricultural workers before they enter pesticide treated areas. Also, employers must ensure that their workers have been fully trained in pesticide safety within five days after they begin work.

Exemption for Crop Advisors. Certified or licensed crop advisors and persons under their direct supervision are exempt from restrictions on entering areas where pes-

ticides have been applied (if they have received pesticide safety training), while they are performing crop advisory tasks. All persons performing crop advising tasks are exempt until May 1, 1996 to allow time for crop advisors to acquire certification or licensing.

Exception for "Limited Contact" Activities. Workers are permitted to enter pesticide treated areas during restricted entry intervals (REI) in order to perform certain activities that would involve relatively little exposure with pesticide-treated surfaces.

Exception for Irrigation Activities. Irrigation workers are permitted to enter pesticide treated areas during REI, but must not exceed eight hours in any 24 hour period.

Reduced Restricted Entry Intervals. EPA has identified 114

relatively low risk pesticide active ingredients as candidates to reduce the REI from 12 hours to four hours.

The following three new proposals to the WPS are expected in the spring.

- Change the bilingual field sign requirement to state English and other appropriate language. It formerly required English and Spanish.
- Suggestions will be given to change the time limitation for providing decontamination supplies.
- A broad-based exception process will be proposed that goes beyond the REI and early entry exception to the rule itself.

(Adapted from WorldWide Web documents, meeting notes, and EPA press releases) ▲

Senate Ag Hearing

A hearing was held Tuesday, February 14, before the Senate Ag Committee, Senator Lugar, Chairman. The purpose of the hearing was to hear testimony from the agriculture community on regulatory reform. Testimony covered everything from WPS to regulations of OSHA, FDA, DOT, and USDA. There was also discussion of a moratorium on regulations that have been issued since November 20, 1994.

Since WPS was obviously one of the "hottest" topics, there was

considerable testimony. NASDA contended that EPA has not met its obligations. EPA responded that it has and will.

John Impson, national program leader for PAT, offered a summary of all the testimony as follows:

- Regulations (all) are too complex and inflexible, as well as overlapping.
- There was considerable discussion on a moratorium.
- The upcoming Farm Bill was discussed as an avenue to ad-

dress the problem of regulatory reform.

- There is confusion among the farming community and concern over regulations, especially compliance and cost/benefit of current regulations.

There seems to be a move to address the issue of ag regulations. One senator remarked, "...more determined to do something about these senseless regulations..."

(e-mail from John Impson, February 15, 1995) ▲

Guidance on Issuance of WPS Enforcement

On February 13, 1995, the EPA distributed its "Summary Guidance on Issuance of WPS Enforcement Actions," which applied to any violations of the Worker Protection Standard (WPS). EPA recommended that accountability for compliance with the FIFRA WPS be decided on a commonsense, case-by-case basis. The following 10 factors were recommended by EPA for states consideration when they need to determine the appropriate recipient(s) of a WPS enforcement action. The 10 factors are not listed in any order of priority; each factor should be appropriately considered in every case.

1. Who has control over pesticides use
2. Who directs pesticide use
3. Who has control over the agricultural establishment for posting and other WPS-related responsibilities
4. Who gives direction on the agricultural establishment for posting and other WPS-related responsibilities
5. Who has control over the practices used by agricultural workers on the establishment

6. Who directs the practices used by agricultural workers on the establishment
7. Measures taken to comply with provisions of the WPS
8. Actions taken in response to incidents of noncompliance
9. History of prior violations
10. Ability to assure continuing compliance with the WPS

Recently, the EPA was asked to distribute further guidance specific to enforcement of the personal protective equipment (PPE) provisions of the WPS. Their response is as follows:

"The 10 factors should be considered if an employee (including workers and handlers) does not use PPE required by the WPS. It is essential for employers/owners/operators to take an active role to assure that PPE is used.

"The employer/owner/operator bears primary responsibility for WPS PPE compliance. Employers/owners/operators must provide, clean and maintain PPE, and instruct employees on its proper use. The employer/owner/operator has a responsibility to inform employees who do not use

their PPE that such clothing or protective gear is required. In the case of pesticide handlers, the responsibility to follow label directions and use PPE properly is a shared one with the employer.

"The employer/owner/operator also has a responsibility to take appropriate actions if an agricultural employee does not comply with instructions to use PPE. If an employee does not use WPS required PPE, appropriate supervisory actions that could be taken by the employer/owner/operator to achieve compliance include warnings and nondiscriminatory discipline. If an employer/owner/operator provides employees with appropriate PPE, training and supervision per the specifications of the WPS, there should not arise an occasion on which the employer/owner/operator would be subject to a WPS/PPE enforcement action due to the individual decision of an agricultural employee not to use the PPE."

(Adapted from WorldWide Web document) ▲

EPA Questions and Answers

The WPS interpretive guidance workgroup recently released a set of 29 questions and answers on the Worker Protection Standard. Questions were submitted to the workgroup concerning many issues such as contract liability, notification of application, plants grown for research purposes, and posting requirements. A previous questions-and-answers document, released October 21, 1994, addressed 56 questions.

Questions on the WPS regulation are submitted to the interpretive guidance workgroup by the EPA regional offices, state lead pesticide agencies, and the public.

An additional 24 questions will complete this set and are due out anytime.

A copy of the questions and answers is available electronically on Gopher or the WorldWide Web. Contact Rhonda Ferree for more information. ▲

Pesticide Update

The following information provides registration status of particular pesticides and should not be considered as pesticide recommendations by the Illinois Cooperative Extension Service.

Agronomic

Amber (trisulfuron), Ciba

Received EPA registration to use as a preplant-incorporated fall application on wheat.

Beacon (primisulfuron-methyl), Ciba

New label amendments include tank mixing with Aatrex, Buctril, Clarity, Marksman, and Accent for corn use.

Broadstrike Plus (flumetsulam/clopyralid), DowElanco

Received EPA registration for this prepacked tank mix for use on corn.

Butoxone 7500 (2,4-DB), Cedar Chem

Received EPA registration for this new formulation available in water-soluble bags for use on soybeans and alfalfa.

Commence (clomazone/trifluralin), FMC

The company has announced an approximate 18 percent price reduction for this product this coming season.

Conclude B (bentazon/acifluorfen), BASF

A premix formulation introduced this year to control weeds in soybeans.

Conclude G (sethoxydim), BASF

A new formulation for use as a postemergence grass control product in soybeans.

Double Play (acetochlor/EPTC), Zeneca

A new premix containing a corn-safener recently registered for use on corn.

Dual (metolachlor), Ciba

Now registered for fall application in Illinois to corn stubble.

Exceed (prosulfuron/primisulfuron-methyl), Ciba

A premix for postemergence broadleaf-weed control in corn. (*Prairie Farmer*, January 1995)

Force 3G (tegluthrin), Zeneca

A new granular formulation for use on corn.

Harness Xtra (acetachlor/atrazine), Monsanto

A new formulation being introduced this year for use on corn as a preemergence herbicide.

Laddok S-12 (bentazone/atrazine), BASF

A new premix in a 1:1 ratio. (*Prairie Farmer*, January 1995)

Peak (prosulfuron), Ciba

A new postemergence herbicide for grain sorghum. (*Prairie Farmer*, January 1995)

Pentagon (pendimethalin), American Cyanamid

A dry formulation of Prowl. (*Prairie Farmer*, January 1995)

Permit (halosulfuron-methyl), Monsanto

A new postemergence herbicide in the sulfonylurea family. (*Prairie Farmer*, January 1995)

Prowl (pendimethalin), American Cyanamid

Label now allows tank mixing with Accent, Accent SP, Atrazine, Banvel, Beacon, Buctril, 2,4-D, or Marksman.

Proxol 80SP (trichlorfon), Agr Evo
Farm crop use is deleted on this label.

Rezult (bentazon/sethoxydim), BASF

A new formulation for use on soybeans.

Ridomil (matalaxyl), Ciba

The Ridomil MZ 58, Ridomil/Copper 70W, and Ridomil/Bravo 81W formulations now allow corn planting within 9 month of the last application.

Scepter (imazaquin), American Cyanamid

Corn can now be rotated into soybean fields 9-1/2 months after application instead of 11 months.

Surpass (acetochlor), Zeneca

Received an EPA registration to tank mix with Eradicane for use on corn as a soil-incorporated treatment.

(continued on page 4)

Pesticide Update (cont.)

Tilt (propiconazole), Ciba

Received an EPA registration to tank mix with chlorothanil for use on corn. Tilt/Bravo available as a Twin Pak to treat 10 acres.

Top Notch (acetochlor), Zeneca

This is a new encapsulated formulation for use on corn.

Many*2,4-D, 2-EHE GEL (2,4-D), Rhone Poulenc*

A new gel formulation of 2,4-D registered by EPA.

Broadstrike Plus (flumetsulam/clopyralid), DowElanco

A new soil applied herbicide combination for preemergence broad-leaf-weed control in corn.

BSP Lime Sulfur, Best Sulfur Products

Received an EPA label to use on a wide range of deciduous plants for several diseases.

Champ Formula 2 (copperhydroxide), Agtrol

Replaces Champ Flowable with double-active ingredient and a new surfactant system.

Command (clomazone), FMC

In response to volatility problems, in 1996 this product will be reformulated as a liquid micro-encapsulated herbicide for preemergence rather than incorporated use.

Domain 50WP (thiophanate-methyl), Scotts

This product is now packaged in water-soluble bags.

Javelin WG (B.t.), Sandoz

A new wettable-granule formulation intended to provide more complete leaf coverage for better control.

Prelude (permethrin), Zeneca

A new formulation recently introduced for both indoor and outdoor applications to control over 35 insects.

Protect T/O (mancozeb), W.A. Cleary

Available in water-soluble bags.

Shotgun F (atrazine/2,4-D ester), Platte Chemical Co.

A new formulation for use on corn, sorghum, fallow systems, and conifers.

Ornamental/Turf*Azatin EC (azadirachtin), Agri Dyne*

Added to their label the control of black vine weevil on nursery plants.

Calar (CAMA), Drexel

The company has introduced this new product for postemergence weed control on turf.

Daconil Ultrex (chlorothalonil), ISK Bioscience

This turf and ornamentals fungicide is available in a new formulation. It contains tiny, sandlike particles that easily mix in the tank and stay in suspension.

Facet 75DF (quinclorac), BASF

This new formulation replaces the

50WP and is available in water-soluble bags.

Factor WDG (prodiamine), Sandoz

A selective preemergence herbicide labeled for use on more than 100 species of ornamental plants. (*American Nurseryman*, January 15, 1995)

Garlic Barrier, Garlic Research Labs

This garlic-based insect repellent has received EPA approval for use on tree and vine crops. (*American Nurseryman*, March 15, 1995)

Lannate (methomyl), DuPont

Ornamental use is deleted on this label.

Otto (Acephate), Valent

This is a new formulation recently made available in water-soluble packets.

Pendulum (pendimethalin), American Cyanamid

Added to their label the use on cool- and warm-season turf to control weeds preemergence.

Pendulum WDG (pendimethalin), American Cyanamid

The label has been expanded on nursery crops to include over 70 new species.

Pinpoint 15G (acephate), Valent

A new formulation recently registered to use on container-grown

(continued on page 5)

Pesticide Update (cont.)

nursery stock for control of aphids, mealybugs, lacebugs, and ants on turf and noncrop areas.

Primo (trinexapac-ethyl), Ciba
This growth regulator will now be available in water-soluble bags for use on turf.

Tame (fenpropathrin), Valent
New registration include the use on many outdoor container shrubs.

Tupersan 70 (siduron), Gowan
The company has obtained the marketing rights to this product from DuPont.

Vector MC or WG (Sternernema riobris or S. glaser), Biosys
This new nematode-based biopesticide for mole cricket control in golf courses and other turf areas.

Velocity (acephate), Valent
A newly registered granular formulation for controlling ants in turf.

Vydate L (oxamyl), DuPont
Use on ornamentals is no longer on this label.

Other

American Cyanamid

The company will license its Lock-n-Load closed handling system to Rhone Poulenc, which will use it to sell Temik (aldicarb) and Mocap (ethoprop).

Bayer

The company will change its name from Miles Inc.—Agricultural Di-

vision to Bayer Corp.—Agricultural Division in the United States and Canada in April 1995.

Subcide (adjuvant), Terra International Inc.

A new herbicidal adjuvant that helps herbicides cling to aquatic weed surfaces. (*American Nurseryman*, January 15, 1995)

Structures

ETOC (prallethrin), Sumitomo
Received EPA registration for use as a crack and crevice treatment and spot treatment in or around nonfood or feed areas and in residential, industrial, and institutional buildings to control many insects and insect relatives.

Vegetable/Fruit

Admire 2F (imidacloprid), Miles Inc.

Received EPA registration on potatoes to control green peach aphid, Colorado potato beetle, leafhoppers, and flea beetles. Applied to the soil at planting time.

Alliette (fosetyl-Al), Rhone Poulenc

Received EPA registration to use on bearing pome fruits and tomatoes.

Prometyrne 4L, Gowan

Added use on dill to the label.

Phosdrin (mevinphos), Amvac

EPA has agreed to extend its deadline to use existing stocks of this material until 11/30/95 at the user level.

Provado 1.6F (imidacloprid), Miles Inc.

Received EPA registration on apples to control aphids, leafhoppers, and leafminers.

Thirethrin (endosulfan/PBO/pyrethrin), Riverside Chemical

A new formulation for use on a number of fruit and vegetable crops.

Zeneca

The company has a genetically modified tomato (for use in processed tomato products) that has been cleared for sale in the United States and the United Kingdom.

(Rhonda Ferree, Extension horticulturist; unless otherwise noted, adapted from *Agricultural Chemical News*, April 1993, May 1993)

EPA's Lawn Posting Guide

The EPA will not issue guidelines for lawn-care posting as detailed in the January 1995 issue of *Illinois Pesticide Review*. Instead the EPA is planning to collect lawn-care pesticide exposure data and outline label improvements. (e-mail from John Lloyd, March 8, 1995)

Federal Legislative Update

Many critical agricultural issues are facing the 104th Congress. The following key issues have been in political gridlock for several years. Many expect the new Republican-led House and Senate to be more pro-business and anti-regulation. This is not good news to everyone. John Block, former secretary of agriculture in the Reagan administration and current president of the National American Wholesale Growers Association, called the election results "a nightmare for food-safety critics and environmentalists."

Minor-use pesticides. The Minor-Use Crop Protection Act of 1995 (HR 1352) was introduced in late March by 12 sponsors. Provisions in this bill are similar to earlier versions. Tom Ewing (R-IL) is a sponsor of this bill.

Food-safety reforms and the Delaney Clause. Markup of a revised HR 1627, the Food Chain Coalition's food-safety bill, is expected to be done in May by the House Agriculture Committee's Department Operations, Nutrition and Foreign Agriculture Subcommittee. Bill Emerson (R-MO), subcommittee chairman, is confident that the Delaney clause will be addressed in this bill.

Reregistration. The 1988 revision of FIFRA called for the reregistration of many pesticides. In the past, EPA has issued additional fees to help pay for this process. The EPA administration wants to extend the authority for fees beyond 1997. Jim Aidala, associate assistant administrator, OPPTS, EPA, says there are still 8,000 backlogged studies in

reregistration. He says, "We need continuing cost-sharing to make reregistration happen."

1995 Farm Bill. Many issues are on the table here.

Environmental legislation. Congress will pursue changes in regulatory procedures that will essentially reduce the power of the Clean Water Act, the Endangered Species Act, and other environmental legislation.

(Adapted from *American Nurseryman*, January 1, 1995; *P&TCN*, March 15, 1995, and April 5, 1995; *The Grower*, January 1995; *American Nurseryman*, April 1, 1995; e-mail message from John Impson, March 1, 1995) ▲

Pesticide Recordkeeping Changes

The U.S. Department of Agriculture has finalized amendments to the federal pesticide recordkeeping regulations. Changes become effective May 11 and include the following.

- Certified private applicators must now make a record of a restricted-use pesticide application within 14 days of the application. The previous time period was 30 days.
- The location element on the "spot application" record must now include a concise description of location and treatment. A "spot

application" is any application made on the same day in a total area of less than one-tenth of one acre.

- Record information provided to the attending licensed healthcare professional will now also be available to individuals acting under the direction of that professional for purposes of treating those who may have been exposed to a restricted-use pesticide.

Changes affect private pesticide applicators only. Commercial pesticide applicators should

continue to maintain records according to state regulations but are required to provide a copy of the record to their customer within 30 days as originally indicated.

See "Final Rule on Recordkeeping Requirements" in Vol. 6, No. 3, and "Proposed Revisions to Federal Recordkeeping Requirements" in Vol. 7, No. 2, of the *Illinois Pesticide Review*.

(Adapted from John Impson e-mail on February 9, 1995) ▲

Illinois Legislative Update

The following bills have been introduced in Illinois.

HB 575 (Persico-R). The DuPage County Forest Preserve District introduced into legislation again this year to expand the plant species in the Illinois Exotic Weed Act. Proposed additional plants include common buckthorn (*Rhamnus cathartica*), autumn olive (*Elaeagnus umbellatus*), amur honeysuckle (*Lonicera maackii*), and crown vetch (*Coronilla varia*). Current exotic plants in Illinois are Japanese honeysuckle, multi-flora rose, and purple loosestrife.

HB 1595 (Noland-R) and SB 392 (Woodyard-R). The Illinois Fertilizer and Chemical Association (IFCA) has initiated legislation to

amend the Illinois Pesticide Act. It requires that license renewal applications be made on or before March 1 following the license expiration date and provides for a late fee. The legislation authorizes the Director of Agriculture to seize pesticides that allegedly are not in compliance with the act. Revisions also call for deleting the provision that currently prohibits the Department of Agriculture (IDOA) from issuing, after July 1, 1995, authorizations to agrichemical facilities for land application of pesticide-contaminated soils at agronomic rates. Finally, it provides for judicial review of IDOA final administrative decisions and gives the IDOA emergency rulemaking authority.

SB 454 (Senator Rauschenberger-R). This bill repeals the section of the civil administrative code that created the Governor's Agricultural Heritage Award Program and repeals the Farm Products Inspection Act, the Fresh Fruit and Vegetable Marketing Act, the Farm Produce Commission Merchant Act, the Agricultural Foreign Investment Disclosure Act, and the Agricultural Land Ownership Act.

Thanks to David Robson, Extension Educator in Horticulture at the Springfield Extension Center, for his timely updates.

(Adapted from *Growing Trends*, April 1995, and copies of bills)



Pesticide Containers Recycled

Nearly 129,000 plastic pesticide containers were collected by the Illinois Department of Agriculture and various agriculture groups for recycling in 1994, more than double the 57,000 collected in 1993.

Due to new regulations, Agriculture Department Director Becky Doyle, says the program is likely to be expanded in 1995. "Beginning January 1, state law prohibits open burning of pesticide containers at agrichemical

facilities. As a result, I think a lot more people will look to the recycling program as a safe, convenient, practical means of disposal."

Most of the containers are used to fuel cement kilns. Some plastic is turned into fence posts, pallets, highway guardrails, and plastic drainage tile. An estimated 48 tons of plastic were collected, which otherwise would have been burned or buried in landfills.

The 1995 pesticide-container recycling program sites are already

scheduled. More than 80 locations will collect pesticide containers in June, July, and August. Brochures are available from the Illinois Department of Agriculture, Bureau of Environmental Programs.

(Adapted from *Prairie Farmer*, February 1995; and IDA brochure on "Pesticide Container Recycling Program")



Delaney Clause

As part of a recent court settlement in U.S. District Court in Sacramento, the EPA has agreed to comply with the Delaney Clause of the Federal Food, Drug, and Cosmetic Act (FFDCA), which was passed in 1958. The settlement comes as a result of a 1989 case brought by environmentalists, advocates for farm workers, and the state of California against the EPA. Plaintiffs alleged that the government had never enforced the Delaney Clause in Section 409 of the FFDCA. The Delaney Clause prohibits Section 409 tolerances for additives that induce cancer in animals or humans. Plaintiffs also asked EPA to revoke a number of Section 409 food-additive regulations (tolerances) for pesticide residues in processed food or feed and underlying Section 408 pesticide residue toler-

ances for the raw commodities.

A summary of the settlement follows:

- EPA agreed to respond to the National Food Processors Association (NFPA) petition, which argues that EPA should not use its concentration and coordination policies to implement the Delaney Clause within 60 days of court approval of the settlement.
- EPA agreed to a schedule to decide whether to revoke any or all Section 409 tolerances listed for 20 pesticides that potentially violate the Delaney Clause under current policies.
- EPA agreed to a schedule to decide whether to revoke any or all of the 82 Section 408 raw-crop tolerances associated with 35 pesticides that potentially violate the Delaney Clause.

- EPA agreed to conduct reviews to identify other Section 409 food-additive regulations and Section 408 tolerances potentially affected by the Delaney Clause and decide whether or not to revoke them.
- EPA will continue to use the standard for inducing cancer under the Delaney Clause where pesticides are found to increase the incidence of tumors in an animal study.

The EPA administration wants to replace the Delaney clause with a public health standard.

(Adapted from *P&TCN*, February 1, 1995, and March 15, 1995; *The Grower*, January 1995; *American Nurseryman*, April 1, 1995; e-mail message from John Impson, March 1, 1995) ▲

Triazine Review

The comment period for EPA's special review of the triazine herbicides expired on March 23.

As of March 15, 20,000 comments had been received, with the majority of the comments and petitions supporting continued use of the pesticide. Approximately 75 percent of the comments received were from private citizens and farmers. In addition, about 200 petitions urging the agency not to cancel registration for the herbicides have flooded EPA.

DuPont requested an extension of the comment deadline so that they could include the results

of a cyanazine rat cancer study. EPA denied that request.

Ciba Crop Protection sent the EPA about 15,000 pages in 100 volumes detailing why the special review for atrazine and simazine should be terminated. Part of that rebuttal estimated that the "minimum quantified annual economic losses to the U.S. economy from the cancellation of atrazine would range from \$1.181 billion to \$2.787 billion."

(Adapted from *P&TCN*, March 1, 15, and 29, 1995) ▲

The development and/or publication of this newsletter has been supported with funding from the Illinois Department of Agriculture.

*Rhonda J. Ferree
Extension Horticulturist
Pesticide Applicator Training*

8.3

The Illinois Pesticide Review



News About Pesticides and Regulations



1201 S. Dorner Dr. • Urbana, IL 61801 • (217) 244-4397

AUG 16 1995

Vol. 8, No. 3

AG Library

July 1995

Perceptions of Agrichemicals

Home Pesticide Linked To Some Cancer In Kids This was the headline on Monday, February 27, in the *USA Today* national newspaper. The article reported on a study that suggested links between cancers in children and exposure to pesticides in and around the home. The EPA response, four days later, said the specific methods to measure actual exposure in the study "were crude," and that the study did not look at specific chemicals. Regardless of the response, headlines like these work to reduce the public's perception of agrichemicals, or do they?

Recently much research has been done on public perceptions of and reactions to agrichemicals. A recent report from the Council for Agricultural Science and Technology (CAST) presented key findings from a collection of such studies. The report reviews data from surveys of public perceptions of pesticides and animal drugs, studies of public perceptions of pesticide benefits and public willingness to pay for lowered pesticide residue levels in food, and studies of public reaction to the introduction of animal drugs.

"Consumers have diverse views and preferences about agricultural chemical use," said Dr.

Eileen van Ravenswaay of Michigan State University, author of the report. "The diversity has important implication for public policy, marketing, and risk communication. Approximately 1/4 of the public perceives a great chance of harm from pesticide residues in food; approximately the same percentage perceives very little or no chance."

A public opinion survey commissioned by RISE (Responsible Industry for a Sound Environment) found that the average American is more tolerant of pesticide use than some would imagine. They found that many Americans clearly see the benefits of pesticides. "Maintaining public health" was the reason given by almost 8 in 10 respondents for applying pesticides to control pests and weeds in public areas. Professional applicators are thought to be safer with the pesticides they apply, even though they are thought to use stronger pesticides than homeowners. The majority of people use some form of pesticides: 64% control household insects/rodents, 48% control garden/outdoor insects, and 38% use lawn care chemicals.

This homeowner pesticide use data echoes a survey done by the EPA, which found that almost half

of all households with children under the age of five had at least one pesticide stored in an unlocked cabinet, less than four feet off the floor. About 75 percent of households without children under the age of five also stored pesticide in an unlocked cabinet less than four feet off the floor. The EPA says this is significant because 13 percent of all pesticide poisonings occur in homes other than the child's home. The EPA says that 80,000 children were involved in common household pesticide-related poisonings or exposures, in 1993 alone.

There are many concerns about pesticides beyond the household arena. The public perceives a range

(continued on page 2)

In This Issue

Perceptions of Agrichemicals . 1
Agriculture Compliance Assistance Center
Pesticide Update
OPP Annual Report for 1994 . 6
Illinois Legislative Update
Endangered Species Act
FDA Pesticide Monitoring
Federal Legislative Update

The Illinois Pesticide Review newsletter is sent four to six times per year to Extension personnel, specialists, and others who are interested in the safe and effective use of pesticides. Its primary purpose is to provide concise information on legislation, regulations, and other developments directly impacting pesticide use in Illinois. Please direct comments and suggestions about this newsletter to the Pesticide Applicator Training (PAT) team of Rhonda Ferree, Phil Nixon, Steve Ries, and Bob Wolf.

The information given herein is provided for educational purposes only. Reference to pesticide trade names does not imply endorsement by the University of Illinois, nor is discrimination intended against any product.

Perceptions of Agrichemicals (cont.)

of health effects broader than the cancer risks typically addressed by the government—allergies and nervous system disorders. Furthermore, concern regarding agrichemicals is not limited to food and food safety but extends to concerns about the environment and agricultural workers.

CAST believes that the research on public perception of agricultural chemicals is in its infancy, and more research is needed

to develop valid and reliable measures of how the public perceives and reacts to agricultural technologies.

(Adapted from MSU *Pesticide Notes*, March-April 1995; Nebraska-Lincoln's *The Label*, January and March 1995, *American Nurseryman*, April 1, 1995; *Landscape Management*, April 1995; *Growing Trends*, July 1995) ▲

Agriculture Compliance Assistance Center

EPA's Office of Compliance has created a new Agriculture Compliance Assistance Center to help agricultural producers and agribusinesses. The Center's goal is to increase the level of compliance in ways that meet the needs of the agricultural community. The Center will provide a base for "one stop shopping" for the agriculture sector—one place to get comprehensive, easy-to-understand information about approaches that are both environmentally protective and agriculturally sound.

The Center plans to offer the following types of information:

- *Plain-English Guides.* User-friendly materials that consolidate information about compliance requirements, pollution prevention, and technical assistance resources for use by Regional and State assistance programs, trade associations, individual businesses, citizens, and local governments.

- *Link Pollution Prevention and Compliance Goals.* Information on pollution prevention technologies related to agriculture to help reduce pollution and increase use of the latest pollution prevention technologies.
- *Reduce Compliance Costs.* Identification of common sense, flexible methods of reducing the costs of meeting environmental requirements, including identification of barriers to compliance.

The Center will be coordinated from the Kansas City regional office. Contacts are Ginah Mortensen (phone, 913-551-7864, fax, 202-564-0028) and Avrum W. Marks (phone, 202-564-4149, fax, 202-564-0028).

(Adapted from John Impson email message, June 15, 1995) ▲



Pesticide Update

The following information provides registration status of particular pesticides and should not be considered as pesticide recommendations by the Illinois Cooperative Extension Service.

Agronomic

Assert (imazamethyabenz-methyl), American Cyanamid

A new 67SG formulation is being introduced this year for this herbicide.

Atonik (nitrophenolate), Asahi Chemical

EPA has approved the application to register this new active ingredient as a growth regulator to increase the nutrient uptake in cotton, rice, and soybeans.

Basagran (bentazon), BASF

A three-way tank mix with Poast Plus and Concert can now be used on soybeans.

Basis (rimsulfuron/thifensulfuron), DuPont

Received EPA registration on corn for the postemergence control of grasses and broadleaf weeds.

Beacon (primisulfonyl-methyl), Ciba

May now be tank mixed on corn with Aatrex, Buctril, Clarity, Marksman, Accent, 2,4-D, or Banvel. The use restriction with Counter insecticide has been lifted.

Bicep Lite II (atrazine/metachlor), Ciba

A new formulation introduced this year for use on corn; contains the safener benoxacor and a third less atrazine.

Blazer (acifluorfen), BASF

May now be tank mixed with Roundup for use on soybeans.

Broot (trimethacarb), Drexel

Due to the high cost of re-registration, this corn rootworm larvae insecticide is proposed for cancellation.

Capture (bifenthrin), FMC

Received EPA registration to use on corn to control mites and various insects.

Conclude (acifluorfen/bentazon/ Sethoxydim), BASF

A newly registered one-pass postemergence herbicide for use on soybeans.

Exceed 60DF (prosulfuron/primisulfuron), Ciba

Received EPA registration to use as a postemergence treatment on corn to control several broadleaf weeds.

Flexstar (fomesafen), Zeneca

A new formulation recently registered for postemergence weed control in soybeans to control 49 broadleaf weeds.

Frontier (dimethenamid), Sandoz

New label approvals on soybeans include extending the application window up to the third-trifoliate leaf stage.

Furadan (carbofuran), FMC

EPA announced its decision to deny reinstatement of the use of the granular formulation on corn and sorghum.

Fusilade DX (fluazifop-p-butyl), Zeneca

A new formulation available for this year that contains twice the active ingredient. Also approved to tank mix with Pursuit for use on soybeans at a lower rate of Pursuit.

Harness (acetochlor), Monsanto

New tank mixes on corn include Extrazine, Princep, Prowl, and

Pursuit; and on soils with 2 percent or more organic matter with Banvel or Marksman.

Imidan (phosmet), Gowan

Due to the high cost of re-registration, the company plans to delete this insecticide's use on corn.

Resolve (imazethapyr/dicamba), American Cyanamid

Now registered for use on IMI-Corn; available in Eco-Pak water soluble packets.

Roundup (glyphosate), Monsanto

EPA approved for over-the-top spray on Roundup Ready soybeans.

Many

Armicarb (potassium bicarbonate), Church & Dwight

EPA approved an application to register this new active ingredient for formulation use with fungicides for plant disease control on flowers, ornamentals, turf, fruits, vegetables, and field crops.

Banvel-potassium salt (dicamba k), Sandoz

Due to the high cost of re-registration, the company has proposed to cancel the registration for this formulation.

Dimilin 2L (diflubenzuron), Uniroyal

A new formulation recently registered as a water-based suspension concentrate.

Ethion, FMC

All uses on the label will be cancelled as of 5-15-95 except citrus.

(continued on page 4)

Pesticide Update (cont.)

Spike (tebuthiuron), DowElanco
Due to the high cost of re-registration, the company has requested EPA to cancel the registration for the following formulations: Spike G, Graslan 10P, Spike DF, and Spike/Treflan SG.

Turf/Ornamental

Alamo (propiconazole), Ciba
EPA has approved higher rates for application through pressurized injection equipment to ornamental trees to control oak wilt and Dutch elm disease. The rate has been increased from 6 ml to 10 ml for curative treatment.

Basamid (dazaret), BASF
Label additions include use as a soil treatment prior to propagating or outplanting nonbearing berry, vine, fruit, and root crops and similar nonbearing plants.

Chipco 26019 (iprodione), Rhone Poulenc
Removed from their label the use restrictions for botrytis storage rot on roses.

Demon (cypermethrin), Zeneca
Label additions include controlling boxelder bugs, earwigs, carpenterants, ticks, and wood infesting beetles.

Dimilin 25W (difluorobenzamide), Uniroyal
Added to their label the control of terminal weevils on forests, trees, and shrubs.

Eagle (myclobutanil), Rohm & Haas
Received EPA registration for use on turf to control several diseases on a 14 to 28-day schedule.

Kocide 101 (copper hydroxide), Griffin
Label additions include use on lettuce and turfgrass.

Kocide DF (copper hydroxide), Griffin
Label additions include use on lettuce, sugar apple, and turfgrass.

Manzate 200 (mancozeb), DuPont
Label deletions include use on flowers, ornamental uses, and foliage plants.

Mocap 10G (ethoprop), Rhone Poulenc
Due to the high cost of re-registration, the company has deleted from the label all uses on turf except golf courses.

Proshear, Abbott Labs
Due to the high cost of re-registration, the company has proposed to cancel the registration for this growth regulator, which was used on pine trees to maintain their shape.

Rubigan (fenarimol), DowElanco
Added to their label the use on crabapples and hawthorne.

The Scotts Co.
This fertilizer producer has merged with Miracle-Gro to become the world's largest producer of brand-name lawn-and-garden care products.

Trimec S.I. (2,4-D/MCPP/dicamba), PBI Gordon
A new formulation for use on turfgrass sod farms and industrial turf sites.

Vendex (fenbutalin oxide), DuPont
Due to company policy, all ornamental uses have been deleted from the label.

Other*Applied Biochemists*

The company has reached an agreement with Rhone Poulenc to acquire the sales and marketing rights to Aqua-Kleen granular 2,4-D aquatic herbicide. Rhone Poulenc will retain registration ownership and production of the product.

Cy Lense (cyfluthrin), Miles Inc.
A new formulation recently introduced as a pour-on insecticide for use on cattle.

Fungo (thiophanate-methyl), Grace Sierra
Added to their label the use in greenhouses.

Lentrek 6WT (chlorpyrifos), DowElanco
A new formulation developed to control wood-infesting insects in lumber.

Pathfinder II (triclopyr-butoxyethyl ester), DowElanco
A new formulation developed for the control of woody plants in forests, industrial sites, non-cropland, and rangeland.

Rotenone, Agr Evo
Requested for EPA to delete the following uses from their labels: noncrop, livestock, household, commercial, and industrial uses.

Sandoz
In a management restructuring, this company is dividing into three branches: Pharma, Nutrition, and Agribusiness/Chemicals. Sandoz Agro will be under Agribusiness/Chemicals.

X-Gnat (nematodes), Biosys
This new product was recently introduced to control fungus gnats in greenhouses.

(continued on page 5)

Pesticide Update (cont.)

Structures

Bio-Blast (*Matarhizium anisopliae* strain *ESCI*), *Eco Science Corp.*
A new biologicidal product based on a fungus that, when eaten by termites, kills the termites.

Dichlorovos (DDVP), *Amvac*
The company has proposed to EPA to voluntarily delete many uses from the label.

Evercide Residual Ant & Roach Spray (ETOC), *MGK Inc.*
A new active ingredient for use on nonfood areas of kennels, commercial buildings, hotels, restaurants, and food-processing facilities.

Methomyl, *DuPont*
The company has requested deletion of all fly-bait uses, due to worker-exposure concerns, to become effective 5-5-95.

Tim Bor (boric acid), *U.S. Borax*
Label additions include the control of roaches, silverfish, earwigs, crickets, and ants. It can be applied in a solution in 1 or 2 applications, or as a powder and as a foam.

Vegetable/Fruit

1.4 Sight (1,4-dimethyl-naphthalene), *D-I-1-4 Inc.*
EPA has approved the application to register this new active ingredient to control the sprouting of potatoes during storage.

Ammo 2.5EC (cypermethrin), *FMC*
Received EPA registration to use as a foliar spray on cabbage, head lettuce, onions, garlic, and pecans to control several insects.

Apollo ISC (clofentezine), *Agr Evo*
Received EPA registration to use on apples to control mites.

Apple Wrap (ethoxyquin), *Wrap Pack*
The company has voluntarily cancelled the final uses of this product on apples. Pear registration continues.

Aspire (biofungicide), *Ecogen*
Received EPA approval for control of postharvest fruit rots on citrus and apples. (Adapted from *Ag Consultant*, April 1995)

Diquat (diquat), *Zeneca*
Label addition for nonbearing grapes.

Gemstar LC (*Helicoverpa zea* NPV), *Crop Genetics*
Received EPA registration for this viral insecticide to control lepidoptera insects on tomatoes and vegetable crops.

Indar 75WSP (fenbuconazole), *Rohm & Haas*
This new product will be introduced this season on peaches, cherries, apricots, and nectarines to control brown rot.

Matrix (rimisulfuron/metribuzin), *DuPont*
This new combination recently received EPA registration for use on potatoes.

Meta Systox R (oxydemeton-methyl), *Gowan Co.*
Popcorn, onions, snap beans, and turnips have been deleted from this label.

Mustang 1.5EW (cypermethrin), *FMC*
EPA granted an expanded label for use on onions and cabbage to control many insects.

Procure 50 (triflirimizole), *Uniroyal*
Added to their label aerial application on apples and pears.

Prokil Cryolite (sodium flualuminate), *Gowan*
Bean, cucumbers, mustard, peas, radishes, strawberries, and turnips have been deleted from this label.

Provado (imidacloprid), *Bayer*
Received EPA registration to use on grapes to control leafhoppers and mealybugs.

Raven (recombinant Bt), *Ecogen*
Received EPA approval for control of Colorado potato beetles on commercially grown potatoes, tomatoes, and eggplant. (Adapted from *Ag Consultant*, April 1995)

Ridomil MZ58 (metalaxyl), *Ciba*
Added to their label the control of early blight on potatoes.

Ridomil MZ72 (metalaxyl/mancozeb), *Ciba*
A new formulation for use on potatoes and tomatoes.

Warrior IEC (lambda cyhalothrin), *Zeneca*
Received EPA registration to use on broccoli, cabbage, head lettuce, onions, garlic, tomatoes, and tomatoes to control several insects.

(Unless otherwise noted, adapted from *Agricultural Chemical News*, March 1995, April 1995, May 1995, June 1995) ▲

OPP Annual Report for 1994

EPA's Office of Pesticide Programs (OPP) 1994 annual report contains six major activity areas, as follows.

Registration

OPP registered 31 new pesticide active ingredients in fiscal year 1994, more than half of which are considered to be reduced-risk pesticides. Other registration activities include addressing risks from spraying pesticides aboard aircraft, water protection measures for new pesticide active ingredients, efforts to improve pesticide labels, and reducing unnecessary requirements for pesticide registration.

Reregistration

The reregistration program is one of OPP's largest and most visible programs. Amendments to FIFRA in 1988 required OPP to reregister many pesticides. As of October 1994, OPP had reregistered over 600 products, granted a greater number of voluntary cancellations (925), amended 11 existing registrations, and suspended 449 products. Reregistration decisions are pending on a total of 980 products. (See "Re-Registration Update" in Vol 6, No.5 of the *Illinois Pesticide Review*)

Special Review

Special Review is EPA's formal process for determining whether or not the use of a pesticide poses unreasonable risks to people or the environment. In 1994, Special Reviews were conducted on inorganic arsenicals, EBDCs (fungicide group), and carbofuran (granular formulation). Additionally, mevinphos was cancelled, and an initiative to reduce risks to birds was initiated.

Field Programs

Field programs are programs directed at pesticides users and implemented in the field. The major field programs that OPP implements are the Worker Protection Standard, the Endangered Species Protection Program, ground water protection programs, certification and training of pesticide applicators, and disposal of suspended and cancelled pesticides (completed in 1994). Voluntary field efforts in 1994 included promoting integrated pest management (IPM) and drafting guidance for states for posting of residential and commercial pesticide applications.

Policy, Regulations, and Guidelines

OPP's fifth major program area involves developing regulations and other policies for pesticides. Efforts for 1994 included follow-up to the National Academy of Sciences (NAS) Children's Study, reduced use/risk initiative, biological pesticide policy highlights (see "Plant Pesticide Proposal" in Vol 8, No. 1), activities related to implementation of the "Delaney Clause," and standards for pesticide containers and containment, among others.

Information and Program Management

Although many employees divide their time among different program areas, 767 "Full-time Equivalents" (FTEs) support the office. Of these, 241 conduct field implementation and communications; 189 conduct registration activities; 120 conduct information and pro-

gram management; 78 conduct special review; 70 conduct reregistration; and 69 conduct policy, regulations, and guidance. **Opportunities and Initiatives for 1995**

In addition to continuing the work previously described, OPP expects to pursue several other important opportunities and initiatives during 1995. These include biological pesticides and promoting risk reduction, opening up OPP, and reinventing and streamlining OPPs organization.

(Adapted from the *Office of Pesticide Programs Annual Report* for 1994, January 1995) ▲

Illinois Legislative Update

Agricultural Facility Response Action Program.

Senate Bill 448 (Woodyard/Noland) provided for an agrichemical facility response action program to be administered by the Department of Agriculture. This legislation was introduced by the Illinois Fertilizer & Chemical Association. The intent for initiating this legislation was to provide a program for reducing potential pesticide pollution at agrichemical facility sites. This bill has been sent to the governor for his action.

(Adapted from *Growing Trends*, July 1995) ▲

Endangered Species Act

Just as the Endangered Species Act undergoes scrutiny in Congress, the EPA plans to officially announce its final program on how to protect endangered species from potentially harmful exposure to pesticides. Currently, more than 950 domestic and 560 foreign species of plants and animals are listed as endangered or imminently threatened with endangerment. Federally listed endangered or threatened species in Illinois include 4 birds, 2 bats, 1 fish, 1 butterfly, 13 mussels, and 10 plants. Seven of those are listed as endangered with pesticide impacts and include the Prairie Bush Clover, Fat Pocketbook, Least Tern, Higgins Eye Pearly Mussel, Orange-Footed Pearly Mussel, Iowa Pleistocene Snail, and Pink Mucket Pearly Mussel.

The National Academy of Sciences, in response to a bipartisan request from Congress for an evaluation of the law's scientific basis, prepared a report, "Science and the Endangered Species Act." A committee of experts in biology, wildlife management, law, economics, and other fields is recommending changes in the way biological populations and habitat are designated for protection under the act. Although the committee agreed that "the current rate of extinction is among the highest in the entire fossil record, in large part because of human activity," they noted that recovery plans are often developed too slowly. Overall, the committee points out that the Endangered Species Act is just one tool in the effort to prevent the

loss of species and habitats. It recommends the use of additional preservation approaches, such as efforts by local government and the private sector, to complement the provisions of the Endangered Species Act.

Despite protests from the Clinton administration and environmental groups, Congress is working to change the law. Property-rights activists and other industry and special-interest groups want to ease what they see as restrictive provisions of the Endangered Species Act. Sen. Slade Gorton (R-WA) has introduced legislation (SB768) that would abolish the federal government's ability to fine and imprison those who destroy the habitat of an endangered species. The bill would also eliminate the law's provisions for conserving the ecosystems inhabited by endangered species. As of July 15, the Gorton bill was in the Senate's Environment and Public Works Committee, and there had been no action on it. The House is crafting similar legislation that would enact more extreme revisions of the Endangered Species Act. It appears that the House legislation would eliminate most federal endangered-species regulations and replace them with financial incentives to encourage voluntary habitat conservation.

Despite the activity in Congress, the EPA's Office of Pesticide Programs (OPP) is putting the finishing touches on its Endangered Species Protection Program, which protects listed species from potentially harmful exposure to pesticides. Shortly after the final program is announced, EPA will take the first of several steps to move from the current voluntary program to a mandatory, enforceable one. The program will require pesticide producers to relabel certain pesticide products to include a statement alerting users to potential concerns for protection of endangered and threatened species. Alerted users will be directed to obtain and follow special local, county-by-county instructions contained in an EPA county bulletin, if one exists for your county. EPA plans to open a toll-free hotline to tell pesticide users whether or not EPA has produced a bulletin for their county.

(Adapted from EPA *Endangered Species Update*, October 1994; *Growing Trends*, January 1995; *American Nurseryman*, July 15, 1995; *Checklist of Endangered Animals and Plants of Illinois*; April 1990) ▲



FDA Pesticide Monitoring

The Food and Drug Administration has released its pesticide-residue monitoring findings for fiscal year 1993. The pesticide monitoring program directs its sampling toward domestic and imported foods. Domestic samples are collected as close to the point of production as practically feasible, while imported samples are collected at their point of entry into U.S. commerce. The focus of the residue monitoring program is to collect raw agricultural products and analyze them as whole, unwashed products with peel or skin intact.

The findings for 1993 continue to demonstrate that pesticide residue levels in domestic and im-

ported foods generally are well below EPA tolerances. Of the nearly 13,000 samples collected, 91 pesticides were detected.

FDA analyzed samples from a total of 107 countries. Of the 6,463 analyzed import samples, 69 percent had no residues detected, less than 1 percent had residues that were over tolerance, and 3 percent had residues for which there was no tolerance.

Analysis of domestic foods detected no residues on 64 percent of the samples and less than 1 percent with residues over tolerance. Another 1 percent of the domestic samples had residues for which no tolerance had been established.

The Environmental Working Group's probe of the Food and Drug Administration's pesticide monitoring records interpreted results differently. They found that methamidophos topped the list of pesticides found most frequently in violation of U.S. food tolerance standards on the most crops. Methamidophos was illegally used on 19 different foods. A close second was chlorpyrifos, which was found illegally on 16 crops.

The probe found that 12 crops were more contaminated with illegal pesticide residues than others; green peas and pears topped the list, with violation rates of 24.7 percent and 15.7 percent respectively. For apple juice, blackberries, and green onions, more than 10 percent of the crop contained illegal residues.

(Adapted from *MSU Pesticide Notes*, November-December 1994; *Purdue's The LABEL*, January 1995; and *P&TCN*, February 22, 1995) ▲

Federal Legislative Update

Minor Use

The House has once again introduced minor-use pesticide legislation. The new bill (HR1352) provides incentives for chemical manufacturers to pursue registration of minor uses.

Property Rights

Senate majority leader Bob Dole's "takings" bill now requires government compensation to landowners whose property is devalued by more than 33 percent due to federal regulations. The House version (HR925) is similar but contains different percentages.

Farm Bill

The Senate Agricultural Committee has held several hearings on the Farm Bill. Discussions have included conservation, wetlands, and federal farm policy; the


taxpayer's stake in federal farm policy; agricultural credit in the new century; and market effects of federal farm policy. House activity has been slower on agricultural issues as the new majority acted upon the Republican Contract with American items.

FIFRA/FFCDA

Efforts to reform the pesticide laws, the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Federal Food, Drug, and Cosmetics Act (FFDCA) did not make it to the floor of the House or the Senate.

(Adapted by WSSA Newsletter, April and July 1995; *American Nurseryman*, April 15, 1995, May 1, 1995, and June 1, 1995) ▲

The development and/or publication of this newsletter has been supported with funding from the Illinois Department of Agriculture.



Rhonda J. Ferree
Extension Horticulturist
Pesticide Applicator Training

The Illinois Pesticide Review

NOV 27 1995



News About Pesticides and Regulations



NOV 27 1995

V.G. Libran

1201 S. Dorner Dr. • Urbana, IL 61801 • (217) 244-4397

V.G. Libran

Vol. 8, No. 4

November 1995

Worker Protection Standard Labeling Revisions

The Worker Protection Standard (WPS) for agricultural pesticides requires that any pesticide sold or distributed by any person (including pesticide retailers and distributors) after October 23, 1995, must bear labeling that complies with the WPS. A summary of the rule is given below. For more complete information, refer to PRN-95-5 (available from Rhonda Ferree or other sources).

Registrants have two options. They can recall their non-WPS-labeled products and relabel them, or they can sign a written authorization and provide labels to distributors and retailers for relabeling. Because it is nearly impossible to create a signed agreement with all distributors and retailers, most manufacturers are releasing generic letters that pertain to everyone.

METHODS OF RELABELING

1. Replace existing labeling with final printed, WPS-complying replacement labeling.
2. Modify the WPS statement's labeling (designed and affixed as not to alter or obscure the other portions of the label that remain unchanged).
3. Present a supplemental WPS labeling when offered for sale to the end user (Two variations):

- Single-product supplement: Product-specific full text or partial text that includes complete WPS information.
- Multi-product supplement: WPS product-specific labeling for all products for a specific registrant.
- Both versions must have an accompanying "stop" sticker on the product.

SPECIAL PRODUCTS

1. Dormant products
 - Registrants can amend the product to include the WPS requirements and then recall or relabel the product.
 - Registrants can amend to delete all WPS uses and either recall and relabel or conduct or provide a written authorization for relabeling.
 - Registrants may voluntarily cancel the registration and follow all requirements regarding orphaned/canceled products (i.e., use the generic labeling and the required "stop" sticker).
2. Canceled or orphaned products. Use generic supplemental labeling with the required "stop" sticker when offered for sale to the end user.
3. Deleted-use products. Registrants may either:

- Recall the products and relabel with the new deleted-use "non-WPS" labeling; OR
- Replace the old label with the affixed, product-specific supplemental label completely blocking the previous label or marking/blocking out all WPS uses and references to WPS uses.

By October 23, 1996, all products being distributed or sold must bear final printed, WPS-complying, replacement labeling that conforms to PRN-95-5. Supplemental product-specific replacement labeling will not be allowed after this date.

(Summarized by US-EPA, Region 7) ▲

In This Issue

WPS Labeling Revisions	1
1995-1996 PAT Clinics	2
Pesticide Update	3
2,4-D and MCPA	5
Illinois Legislative Update	5
FIFRA/Delaney Clause	6
The Bald Eagle	6
PAT Committee Structure	7
Cyanazine Phaseout	7
U of I Atrazine Studies	8
Poison Control Centers	8

The Illinois Pesticide Review newsletter is sent four to six times per year to Extension personnel, specialists, and others who are interested in the safe and effective use of pesticides. Its primary purpose is to provide concise information on legislation, regulations, and other developments directly impacting pesticide use in Illinois. Please direct comments and suggestions about this newsletter to the Pesticide Applicator Training (PAT) team of Rhonda Ferree, Phil Nixon, Dennis Thompson, and Bob Wolf.

The information given herein is provided for educational purposes only. Reference to pesticide trade names does not imply endorsement by the University of Illinois, nor is discrimination intended against any product.

1995-1996 Pesticide Training and Certification Clinics

Below is a summary of the 1995-1996 commercial pesticide training and certification clinics. This year's schedule merges the downstate and northeastern Illinois programs into a statewide commercial program to ensure that high-quality, consistent pesticide safety education occurs throughout Illinois. The types of training offered at each clinic are indicated in the right column. For specific

information about each clinic and additional information about Illinois pesticide licensing requirements, obtain a copy of the *Commercial Pesticide Training and Certification Clinic 1995-1996* brochure from any Extension office. Private Pesticide Applicator Clinics are organized by local Extension offices. A statewide private applicator training schedule is available at Extension offices.

<u>Date</u>	<u>Location</u>	<u>Training offered*</u>
Nov. 20-21	Peoria	GS, FC, S, GF
Nov. 29-30	Marion	GS, ROW, AQ, S, GF
Dec. 5	Galesburg	Testing only
Dec. 7	Effingham	Testing only
Dec. 11-12	Champaign	GS, ROW, D&R
Dec. 19-20	Mt. Vernon	GS, FC, S, GF
Jan. 8-9	Champaign	GS, FC, S, GF
Jan. 10-11	Mt. Vernon	GS, T, O, MOS
Jan. 17-18	Rochelle	GS, FC, S, GF, AQ
Jan. 22-23	Springfield	GS, FC, S, GF, MOS
Jan. 29-30	Champaign	GS, T, O, AQ
Jan. 31-Feb. 1	Mt. Vernon	GS, ROW
Feb. 6-7	Rockford	GS, T, O, ROW, MOS
Feb. 8	Des Plaines	Testing only
Feb. 13-14	Springfield	GS, T, O, ROW, D&R
Feb. 14-15	Mundelein	GS, T, O
Feb. 20-21	E. Peoria	GS, T, O, AQ
Feb. 21-22	Matteson	GS, T, O, ROW, MOS
Feb. 26-27	Collinsville	GS, T, O, ROW, MOS
Feb. 27	Crystal Lake	GS
Feb. 29	Dekalb	Testing only
March 4-5	Jacksonville	GS, FC
March 5-6	Willowbrook	GS, T, O, ROW, AQ
March 11-12	East Moline	GS, T, O, ROW
March 12-13	Arlington Hts	GS, T, O, ROW
March 19	Mt. Vernon	GS
March 19-20	Glen Ellyn	GS, T, O
April 2-3	Matteson	GS, T, O
April 9	Peoria	GS
April 9-10	Mundelein	GS, T, O
April 16-17	Westmont	GS, T, O
May 14	Springfield	GS
May 22	Glen Ellyn	GS

*Category codes

GS: General Standards

FC: Field Crops

AQ: Aquatics

T: Turf

O: Ornamental

MOS: Mosquito

ROW: Right-of-Way

S: Seed Treatment

GF: Grain Facility

D&R: Demonstration and Research

Pesticide Update

The following information provides registration status of particular pesticides and should not be considered as pesticide recommendations by the Illinois Cooperative Extension Service.

Agronomic

Aztec (tebupirimfos/beta-cyfluthrin), Bayer

A new granular, soil-applied insecticide to be introduced next year for use on corn to control several insects.

Conclude (bentazon/acifluorfen/sethoxydim), BASF

New formulation available this year for use on soybeans.

Exceed (prosulfuron), Ciba

EPA announced approval to register this new active ingredient for use on corn and popcorn.

Frontier (dimethenamid), Sandoz

Application on soybeans can now be made up to the third-trifoliate leaf stage.

Peak (prosulfuron), Ciba

EPA announced approval to register this new active ingredient for use on field corn, popcorn, and sweet corn.

Ridomil MZ 58 (metalaxyl/mancozeb), Ciba

On their label, changed the crop-rotation interval for corn to 9 months.

Many

DDVP (DDVP), Amvac

Due to the high cost of re-registration, the company is deleting from its label the use on greenhouses, tomatoes, and various food-handling establishments.

Lorox (linuron), DuPont

Non-crop rights-of-way and all food-crop uses were deleted from this label. Seed treatment use will be retained.

Mocap (ethoprop), Rhone Poulenc

Due to the high cost of re-registration, the use on soybeans and domestic turf will be deleted from the label.

Ridomil 2E (metalaxyl), Ciba

Added to their label the use on cereal grains and leafy vegetables.

Tebufenozide, Rohm & Haas

The company will market this insecticide as Confirm on food crops and as Minic in forest applications.

Vydate L (oxamyl), DuPont

The company has reduced the rotational crop interval from 6 months to 4 months.

Weedone LV4 (2,4-D), Rhone Poulenc

This is an octyl ester formulation of 2,4-D that is now available in a new solventless formula.

Other

Bonzi (paclobutrazol), Uniroyal

The re-entry interval on this plant-growth regulator has been reduced from 24 hours to 12 hours.

Clorox Company

The company has purchased the Black Flag line of insecticides from Richitt & Colman Pfc of London, England. It also includes the Roach Motel line of insect traps and the Holiday line of insect foggers.

Krenite Brush Control (fosamine ammonium), DuPont

Ditchbank uses are deleted from this label.

S.C. Johnson

The company has acquired Whitmire Research Labs of St. Louis, MO, as well as Micro-Gen Equipment Co. of San Antonio, TX, which will be merged.

Structures

Prelude (permethrin), Zeneca

Added to their label, flea control in residential homes and structures and also control of wood-infesting beetles in homes and other structures.

Turf/Ornamental

Asulox (asulam), Rhone Poulenc

As a result of the IR-4 Project, they added to their label the use on English ivy, periwinkle, mugo pine, white pine, and Japanese spurge.

Bayleton (triadimefon), Bayer

As a result of the IR-4 Project, they added 20 new ornamentals to their label.

Benefit (thiophanate-methyl/iprodione), The Scotts Co.

A new combination fungicide for use on greenhouse and field-grown ornamentals.

Benlate (benomyl), Ciba

Deleted from their label the use on turf and lawn grass areas.

Citation (cyromazine), Ciba

Added to their label the new usage on insects in most indoor and outdoor nursery settings.

Dursban (chlorpyrifos), DowElanco

As a result of the IR-4 Project, they added to their label the use on 20 new ornamentals.

(continued on page 4)

Pesticide Update (cont.)

Fungo-Flo (thiophanate-methyl), Scotts

Added to their label the use in greenhouses.

Fusilade II (fluazifop-p-butyl), Zeneca

A new formulation is now available (in quart containers) for use on ornamentals.

Kocide (copper hydroxide), Grif-fin

As a result of the IR-4 Project, they added to their label the use on a number of new ornamental crops.

Manzate 200(mancozeb), DuPont
Deleted from this label is use on nonagricultural turf and lawn grass areas.

Mocap(ethoprop), Rhone Poulenc
Due to the high cost of re-registration, they will delete from their label the use on domestic turfgrasses. Golf-course use will continue.

Naturalis-O(Beauveria bassiana), Troy Bioscience

A liquid flowable formulation recently introduced for use on ornamentals to control several insects.

Neemazad (azadirachtin), W.R. Grace

A new formulation being introduced for use on ornamentals.

O-O Herbicide (oxadiazon/oxyfluorfen), Regal Chemical

A new dry-granule herbicide for use on ornamentals.

Orthene T/O Spray (acephate), Valent

Added to their label the use on chrysanthemums and pansies.

Oust (sulfomethurn-methyl), DuPont

A label change added the following: "Do not apply Oust to conifers or hardwoods grown for Christmas trees or ornamentals."

Oxamyl (oxamyl), DuPont

All ornamental uses are deleted from the label, effective 9-3-95.

Prostar Plus (flutoloni/triadimefon), Agr Evo

A new formulation available in water-soluble bags for use on turf, to control brown patch and dollar spot.

Ridomil Copper 70W (metalaxyl/copper hydroxide), Ciba

Added to their label the use on bulb vegetable crops.

Ronstar (oxadiazon), Rhone Poulenc

The product will be made available this following season in water-soluble bags.

Sanmite (pyridaben), BASF

A new insecticide recently registered by EPA to use on greenhouse ornamentals for control of mites and whiteflies.

Simazine, Ciba

As a result of the IR-4 Project, they added to their label the use on weeping birch, cotoneaster, bald cypress, euonymus, iris, and yew.

Sumagic (uniconazole-p), Valent

Label additions for this growth regulator include the use on woody landscape plants.

Terraguard (triflumizole), Uniroyal

Added to this fungicide label is use on bedding, flowering, and foliage plants.

Vegetable/Fruit

Agri-mek (avermectin), Merck & Co.

Added to their label the use on head lettuce to control leafminers.

Diquat, Zeneca

Added to their label the use on nonbearing grapes.

Eptam (EPTC), Zeneca

Due to the high cost of registration use, on table beets, sweet potatoes, and green peas was deleted, effective 9-5-95.

Omite 30W(propargite), Uniroyal
Added to their label the suppression of leafhoppers on apples.

Poast Plus (sethoxydim), BASF
Use on sunflowers, canola, sugarbeets, potatoes, dry beans, field peas, and lentils was added to this label.

Ridomil 2E (metalaxyl), Ciba
Added to their label the use on leaf lettuce and endive.

Thiram 65 WP, UCB Chemicals
Due to the high cost of re-registration, they will delete dust application uses on apples and strawberries.

Ziram 76, Elf Atochem

Label additions include control of several diseases on grapes and tomatoes.

(Rhonda Ferree, Extension horticulturist; unless otherwise noted, adapted from *Agricultural Chemical News*, July, August, September, and October 1995) ▲

2,4-D and MCPA

Due to the cost of re-registration, the 2,4-D task force will support 2,4-D's use on aquatics, corn, fallowland, farmyards, fence rows, forestry, grass (seed crop), pasture, rangeland, rice, rights-of-way, roadsides, sorghum, soybeans, small grains, sugarcane, and turf. They will support MCPA's use on alfalfa, barley, clover, grasses, lespedeza, noncrop uses, oats, pasture, rangeland, rye, trefoil, turf, vetch, and wheat.

The IR-4 Project will support 2,4-D's use on apples, apricots, asparagus, blueberries, cherries, cranberries, filberts, peaches, pears, pecans, pistachios, plums, potatoes, strawberries, sweet corn, and wild rice. They will support MCPA's use on peas.

The Citrus Quality Commission will support 2,4-D's use on citrus as a growth regulator.

2,4-D uses that will probably be dropped are almonds, clover, cotton, and walnuts. MCPA uses that will be canceled are aquatics, beans, flax, forestry, rice, and sorghum.

(Adapted from *Agricultural Chemical News*, October 15, 1995)



Illinois Legislative Update

Senate Bill 46 (Mahar/Persico) contains the Brownsfield Site Remediation Program to provide procedures for investigative and remedial activities at sites where there is a release or threatened or suspected release of certain substances. The legislation established a Site Remediation Advisory Committee to perform certain review functions. Senate Bill 48 was initiated by the Illinois Manufacturers' Association.

Senate Bill 448 (Woodyard/Noland) was signed into law on July 6, 1995, as Public Act 89-0094. The bill was sponsored by the Illinois Fertilizer & Chemical Association and has several components.

1. An Agrichemical Facility Response Action Program will be implemented to reduce potential pesticide pollution and minimize environmental degradation risk potential at agrichemical facility sites. Agrichemical facilities are sites where agricultural pesticides are stored or handled, or both, in preparation for end use, but exclude sites utilized only for wholesale purposes. This program will provide guidance for assessing threat of soil pesticide contaminants to groundwater and recommend which sites need to establish a voluntary correction action program. The Illinois Department of Agriculture will administer the program.

2. License requirements under the Illinois Pesticide Act were amended to allow a late-fee charge for renewal applications received after March 1 and before April 15. Renewal applications received during this time period will be accepted if accompanied by a late-application fee of \$20. Previously, applications received after March 1 were returned to the applicant, and testing was required before the licensure could be completed.

3. The section of the Illinois Pesticide Act dealing with land application of contaminated soils was also revised to include all agrichemicals, not just pesticides.

4. The Environmental Protection Act section dealing with liability for response costs or damages as the result or threat of a release of a pesticide from an agrichemical facility site was revised. There is no liability if the agency has received notice from the Department of Agriculture that the owner or operator of the agrichemical facility is proceeding with a corrective action plan under the Agrichemical Facility Response Action Program.

(Adapted from Senate Bill O448 Enrolled Legislation and *Growing Trends*, September 1995)



FIFRA/Delaney Clause Reform

Pesticide registration reform has been progressing through Congress as the Food Quality Protection Act of 1995 (HR 1627). FIFRA portions of the bill were approved by the House Agriculture Committee. The Delaney clause reform provision of the bill, however, was not acted upon because the Commerce Committee in the House has jurisdiction over that area. Senator Richard Lugar (R-IN) is sponsoring the Senate version of FIFRA reform.

Provisions of the House bill include:

1. tolerance requirements to protect the health of infants and children;
2. Delaney clause reform to a neg-

- ligible-risk standard;
3. national uniformity for monitoring pesticide residues in domestic and imported food;
4. regulatory-procedure streamlining for registering minor-use pesticides; and
5. cutting the time required for pesticide cancellations from today's 4-to-10 years to just 13 months.

Kate DeRemer of the Senate Agriculture, Nutrition, and Forestry Committee said "I'm skeptical that the whole package of FIFRA can make it through, but the 'minor use' portion could." She notes that Senator Pat Leahy believes that "some sort of stewardship should be legislated rather than voluntary" on the part of

manufacturers.

The House bill has more than 150 co-sponsors and the support of many in the chemical industry. Calls for opinion letters to Congress concerning this legislation have been initiated by several groups, including the American Crop Protection Association and the Weed Science Society of America.

(Adapted from *Landscape Management*, October 1995; *American Nurseryman*, September 1, 1995; *The Grower*, August 1995; letter to WSSA Members in Key States, October 11, 1995; *WSSA Newsletter*, October 1995) ▲

The Bald Eagle—from Endangered to Threatened

Under the Endangered Species Act of 1973, the U.S. Fish and Wildlife Service has reclassified the bald eagle (*Haliaeetus leucocephalus*) from "endangered" to "threatened" in the lower 48 states. This action will not alter conservation measures already in force to protect the species and its habitat. The bald eagle also occurs in Alaska and Canada, where it is not at risk and is not protected under the act.

The bald eagle was originally classified as Endangered in 1967. Shortly after World War II, the use of chemicals such as DDT and other organochlorine compounds became widespread. Initially, these materials were sprayed along coastal and other wetland areas to

control mosquitoes. As DDT accumulated in individual bald eagles from their natural feeding habits, the species's reproduction plummeted. This was due to DDT-breakdown products' impairing calcium release necessary for eggshell formation. This resulted in thin eggshells and the reproductive failures.

Compared to 1974, the number of occupied breeding areas in the lower 48 states has increased by 462 percent. Since 1990, there has been a 47 percent increase. The species is doubling its breeding population every 6 to 7 years since the late 1970s.

One of the two major threats to the bald eagle at present and for the foreseeable future is destruc-

tion and degradation of its habitat. The other major threat is environmental contaminants. Habitat alteration occurs through direct cutting of trees for shoreline development, human disturbance associated with recreational use of shorelines and waterways, and contamination of waterways from point and non-point sources of pollution. Steps to reduce these threats are under way by all levels of government and numerous private conservation organizations nationwide.

(*Federal Register*, 7-12-95, via EPA gopher://gopher.epa.gov:70/11/Rules/Subset/EPA-SPECIES/1995/July/Day-12) ▲

Pesticide Applicator Training Committee Structure

The Pesticide Applicator Training (PAT) program at the University of Illinois develops and delivers high-quality pesticide-safety education. The following structure was developed to ensure all aspects of this important program are covered. Please direct questions and comments pertaining to PAT to the appropriate person.

Advisory team: Loren Bode, Dave Williams, Steve Ries, Marshal McGlamery, Kevin Steffey, Peter Bloome.

Oversee grant development, determine publication needs and priorities, approve major purchases and budget, discuss overall training functions and needs.



Media production coordinator: Rhonda Ferree (horticulture), (217)244-4397.

Coordinate and oversee production of manuals, slide sets, videos, and other publications. Coordinate radio and television programs. Collect and organize newsletter information and ensure its timely publication. Coordinate Illinois's Worker Protection Standard program. Collect and record all PAT-related functions we are involved in. Co-coordinate PAT study material acquisition, reprinting, and marketing.



Correspondence coordinator: Bob Wolf (equipment and calibration), (217)333-9418.

Represent the PAT program through correspondence and meeting participation. Interpret, circulate, and file correspondence with the PAT program. Seek and order useful materials from other states. Maintain and coordinate storage of PAT supplies and equipment. Coordinate the development of electronic training materials and their use for training activities. Co-coordinate commercial PAT clinic planning and implementation.



Private PAT coordinator: Dennis Thompson (crop weed science), (217)333-4424.

Coordinate the private PAT program through determining needs and developing ways of meeting those needs. Have primary responsibility for producing and updating private applicator training materials.



Reporting coordinator: Phil Nixon (entomology), (217)333-6650. Maintain and monitor PAT accounts.

Generate and distribute quarterly reports on all PAT accounts. Prepare grant proposals, state and federal reports, and other reports and summaries. Coordinate commercial clinic preregistration. Coordinate test production with the Illinois Department of Agriculture. Co-coordinate commercial PAT clinic planning and implementation. Co-coordinate PAT study material acquisition, reprinting, and marketing.

Materials/education coordinator: Searching for replacement (plant pathology).

Coordinate PAT storage facility and its utilization, as well as maintain PAT educational supplies. Prepare summaries of new laws and regulations and associated educational materials. Coordinate additional meetings outside of PAT clinics, such as Crop Protection Workshop, other safety sessions, and inservice training. ▲



SPOTLIGHT ON THE UNIVERSITY OF ILLINOIS

U of I Atrazine Studies

University of Illinois cytogeneticist A. Lane Rayburn has been working on a water safety study funded by the Illinois Groundwater Consortium. Rayburn's research found that atrazine causes chromosomal damage to ovary tissues of hamsters within 48 hours of exposure at levels below the maximum contaminant levels established by the Environmental Protection Agency.

"The results provide evidence for further investigations as to the potential health risk of consuming water contaminated with atrazine," writes Rayburn in an article accepted for publication in the *Journal of Environmental Quality*.

Chromosomal breakages, which cause structural changes in DNA, have been associated with some forms of cancer and birth defects. Previous studies that found chromosomal damage and links to cancer were based on high levels of exposure not normally found in the environment. "This research shows a potential that these low levels can cause chromosomal damage, and we need to proceed to the next step—the testing of human tissues to see if the same thing happens at low levels of exposure through drinking water," Rayburn said. "People could say that what we are seeing are small breaks, perhaps even insignificant; but

keep in mind that these studies involved exposure for just 48 hours. Over time, these breakages potentially could grow. For now, however, we do not know what the results of these breakages would be."

Rayburn and D.P. Biradar, a postdoctoral researcher in the UI agronomy department, also tested the herbicides bentazon and simazine; neither caused measurable chromosomal damage.

(Adapted from "How Safe is Your Water?," *Inside ILLINOIS*, August 24, 1995) ▲

Poison Control Centers Report Pesticide Exposures

The American Association of Poison Control Centers summarizes calls received about human exposures to poisons on an annual basis. The 1993 summary involves 1,751,476 exposures reported to 64 poison control centers nationwide. The 64 centers serve about 181 million people.

Calls concerning pesticide exposures represented about 4 percent of all 1993 contacts. Of these, 1,107 dealt with a fungicide; 7,059 with an herbicide; 49,378 with an insecticide; and 14,920 with a rodenticide. The frequency of treatment in a health-care facility ranged from a low of 24% for insecticide exposures to a high of 40% for rodenticide cases.

Ten pesticide-related deaths were reported: two involved rodenticides and eight were due to insecticide exposure. Eight of the 10 were intentional abuse. The other two involved a therapeutic error (ingestion of lindane) and an unintentional exposure (aspiration of grease from farm equipment and permethrin).

(*Virginia Agricultural News* as reported in *Bohmont Bulletin*, vol. 3, no. 3, via University of Nebraska-Lincoln's *The Label*, July 1995) ▲

The development and/or publication of this newsletter has been supported with funding from the Illinois Department of Agriculture.



Rhonda J. Ferree
Extension Horticulturist
Pesticide Safety Education

The Illinois Pesticide Review



News About Pesticides and Regulations



APR 10 1996

G Libr

1201 S. Dorner Dr. • Urbana, IL 61801 • (217) 244-4397

Vol. 9, No. 1

February 1996

Public Wants Pesticides Used Responsibly

There's no question in the minds of consumers about the benefits of specialty pesticides like those used on golf courses and home lawns. But there are concerns about their responsible use, according to results of a survey commissioned by RISE (Responsible Industry for a Sound Environment).

The survey, undertaken by Charlton Research of San Francisco, focused on attitudes of the general public, rather than specifically on consumers who purchase and use pesticides.

Eight focus groups were held in Pittsburgh, Milwaukee, and Birmingham. Each group was composed of 9 or 10 adults of mixed age, gender, area of residence, and location.

Focus group information was combined with a national telephone survey of 1,000 adults.

RISE reported that many consumers "clearly see the benefits of pesticides and are willing to balance their personal and environmental health and safety concerns with those perceived benefits." The participants also believe that pesticides are safe when used as directed but are uncertain whether

or not their neighbors use pesticides safely. The survey also noted that consumers believe professional applicators use stronger pesticides but are trained in their proper use.

Other Survey Results

- Most people use some form of pesticides.
 - 65 percent use pesticides to control household insects/rodents.
 - 48 percent use pesticides to control garden insects.
 - 38 percent use pesticides on their home lawns.
 - 10 percent currently use a lawn care company.
- Controlling termites, insects, and bacteria with pesticides is seen as an important personal health and safety protection issue. It is more important than having a beautiful lawn or the public cost of highway maintenance. If a personal protection issue is at stake, a large majority of respondents indicate they would override their initial concerns about pesticides.
- Only about 50 percent believe pesticides made available to the public are thoroughly tested; the

remaining respondents are unsure.

- The most trusted source of pesticide information is independent local government agencies like extension agents, poison control centers, and health departments.
- "Maintaining public health" is the reason given by almost 80 percent of the respondents for applying pesticides to control pests and weeds in public areas.

(Adapted from *NLA Landscape News*, July/August 1995, via *Growing Trends*, November 1995)



In This Issue

Public Wants Pesticides Used Responsibly	1
FIFRA Violations	2
Pesticide Contractor Gets 5 Years for Misuse of Dursban ..	2
Pesticide Update	3
Agricultural World Wide Web/ Internet Sites Growing	5
Index of 1995 Issues	6

The Illinois Pesticide Review newsletter is sent four to six times per year to Extension personnel, specialists, and others who are interested in the safe and effective use of pesticides. Its primary purpose is to provide concise information on legislation, regulations, and other developments directly impacting pesticide use in Illinois. Please direct comments and suggestions about this newsletter to the Pesticide Applicator Training (PAT) team of Rhonda Ferree, Phil Nixon, Steve Ries, Dennis Thompson, and Bob Wolf.

The information given herein is provided for educational purposes only. Reference to pesticide trade names does not imply endorsement by the University of Illinois, nor is discrimination intended against any product.

FIFRA Violations

Two recent EPA actions reinforce that FIFRA regulates more than pesticides. Complaints have been filed against bleach and soap producers for label violations.

The Clo White Company of Florida produced five bleaches with labels claiming the product has antimicrobial pesticidal properties. However, the bleaches were not registered with EPA as pesticides. Those that were registered contained incorrect EPA establishment numbers and an unauthorized change in signal word from "Danger" to "Warning." The company must pay an administrative penalty and remove the pesticidal claims from the unregistered bleach products.

The Dial Corp. paid \$450,000 to settle an EPA complaint against three of their dishwashing detergents. The three detergent labels claimed the product "removes germs on/from dishes." Because the detergents were not registered as pesticides, they were marketed in violation of pesticide registration requirements. Originally, EPA proposed \$1,022,500 in penalties, but reduced it because of the company's "good attitude." Future labels on the products must state that "This product has not been approved to remove germs from dishes by the U.S. EPA."

(Adapted from *P&TCN*, February 1, 1995, and University of DC *Pesticides Coordinator Report*, January 1995) ▲

Pesticide Contractor Gets 5 Years for Misuse of Dursban

A General Mills subcontractor, Y. George Roggy, was sentenced February 22 to 5 years in prison for unlawfully applying an unapproved pesticide on 19 million bushels of stored oats. The oats were to be used in the production of approximately 160 million boxes of breakfast cereal.

Evidence presented at the trial showed that Roggy "knowingly" substituted Dursban for Reldan, a pesticide approved for use on stored oats. The court added that Roggy admitted using Dursban because it was "cheaper" and his business was "experiencing severe

financial difficulties." General Mills suffered in excess of \$140 million from destroying the treated grain.

In addition to the 5-year prison term, Roggy will serve 3 years of "supervised release," during which he must perform 200 hours of community service, lecturing on the hazards of pesticides.

(Adapted from *P&TCN*, March 1, 1995) ▲

Pesticide Update

The following information provides registration status of particular pesticides and should not be considered as pesticide recommendations by the Illinois Cooperative Extension Service.

Agronomic

Atrazine (atrazine), Terra

Received EPA registration to tank mix with Sencor for use on corn.

Fortress 2.5G and 5G (chlorethoxyfos), DuPont

EPA approved a request to register this new active ingredient for a 3-year period on corn to control rootworm wireworm, cutworm, seedcorn maggots, white grubs, and symphylans.

Lorsban 4E (chlorpyrifos), DowElanco

Added to their label the control of brown wheat mite on wheat.

Raxil-thiram (tebuconazole/thiram), Gustafson

A new seed treatment for use on wheat, barley, and oats to control seed rots, smuts, bunt, root rot, and other soil-borne diseases.

Many

Diuron, Terra

Received an EPA registration to tank mix with Surflan or Devrinol on apples and peaches and with Arsenal in noncrop areas.

Javelin WG (B.t.), Sandoz

The worker re-entry time has been reduced from 12 hours to 4 hours.

Lorox DF (linuron), DuPont

Deleted from their label the use on rights-of-way, sweet corn, and sorghum.

Neem Guard (neem oil), W.R. Grace

EPA approved a request to register this new active ingredient on non-food, non-fee crops in and around commercial nurseries and residential structures.

Roundup Pro (glyphosate), Monsanto

A new formulation that contains all the required surfactants and adjuvants in the formulation.

Surpass (acetochlor), Zeneca

The company will have available for this next season a 20G formulation.

Tachigaren (hymexazole), Sankyo

EPA approved the registration of this new soil fungicide as a 70% WP.

Vydate (oxamyl), DuPont

Reduced the crop rotation interval from 6 months to 4 months.

Other

BASF

The company has signed an agreement with American Cyanamid to supply Cyanamid with private-brand acifluorfen and sethoxydim herbicide products. BASF will continue to market Poast Plus and Blazer. Cyanamid will market these new products next year in several states, including Illinois.

Compadre (glyphosate), Monsanto

A new formulation developed as a cut-stump treatment on trees to prevent growth.

Casoron 10G (dichlobenil), Uniroyal

Deleted from their label aquatic uses.

Ohmicron

The company has introduced a new immunoassay kit for the detection and quantitation of metribuzin (Sencor/Lexone).

Veteran 720 (dicamba/2,4-D), Riverdale

A new formulation developed for brush and perennial weed control.

Structures

Safrotin (propetamphos), Zoecon

Deleted from their label the use in food processing, meat and poultry plants, food packing, and food and/or feed warehouses.

Velocity (acephate), Valent

A granular formulation used to control ants.

Turf/Ornamental

Asulox (asulam), Rhone Poulenc

Added to their label the use on English ivy, periwinkle, mugo pine, white pine, and Japanese spurge.

(continued on page 4)

Pesticide Update (cont.)

Bayleton 25 (triadimefon), Bayer
Added to their label the control of zoysia patch in turf.

B-Nine SP (diminozide), Uniroyal
Changes on the label for the growth regulator include changing the signal word to "danger" and adding "For use only in commercial or research greenhouses or shadehouses."

Dimilan 25W (diflubenzuron), Uniroyal
Received EPA registration for use to control fungus gnats in greenhouses and shadehouses.

Dimilin (deflubenzuron), Uniroyal
As a result of the IR-4 Project, they added primrose and lobelia to their label.

Fungo-flo (thiophanate-methyl), Scotts
Greenhouse use was added to this label.

Naturalis-L (Beauveria bassiana), Troy Biosciences
Received EPA registration for this fungal-based bioinsecticide to use on trees, lawns, and ornamentals.

Riverdale
The company is introducing its turf herbicides Dissolve and Triplet in 2.75-ounce water-soluble bags for the spot-treatment market.

Simazine, Ciba
Added to their label the use on bald cypress, cotoneaster, euonymus, false cypress, heavenly bamboo, weeping birch, and yew.

Solaris
This lawn and garden product manufacturer bought a 17 percent stake in its distributor, Central Garden & Pet, for \$900,000. Under the agreement, most Solaris distributors will become subdistributors of Central.

Sumagic (uniconazole-p), Valent
Added to their label the use on woody landscape plants for this growth regulator.

Vegetable/Fruit

Apron (metalaxyl), Ciba
Added to their label the use on carrots and peanuts.

Casoron 4G (dichlobenil), Uniroyal
Deleted from their label the use on peaches, nectarines, plums, and prunes.

Checkmate PTB (pheromone), Concep Inc.
EPA approved a request to register this new peach twig borer pheromone.

Nomate TPW (tomato pin worm pheromone), Ecogen
Deleted from their label "do not apply within 30 days of harvest."

Ridomil 2E (metalaxyl), Ciba
Added to their label the use on cereal grains and leafy vegetables.

Ridomil Copper 70W (metalaxyl/copper hydroxide), Ciba
Added to their label the use on bulb vegetable crops.

(Unless otherwise noted, adapted from *Agricultural Chemical News*, November 1995, December 1995)



Agricultural World Wide Web/Internet Sites Growing

Internet sites are growing daily and show no sign of slowing down. These home pages offer new and expanded opportunities for information. A "home page" at a given web site is like a front page of a newspaper. It is the starting point to see and hear information that integrates text, graphics, sound, and video.

Below are listing of several home pages you may be interested in. Check them out, but be careful. "Surfing the net" is addicting, and you could quickly become an "internet junkie."

Occupational Safety and Health Administration (OSHA)
<http://www.osha.gov>

United States Environmental Protection Agency (US-EPA)
<http://www.epa.gov>

University of Illinois (Urbana) Division of Environmental Health & Safety
<http://romulus.ehs.uiuc.edu/DEHS/dehs.html>

Pesticide Labels and MSDS

(At the present time, only DuPont and Bayer labels and MSDSs are available; but Rhone Poulenc is coming soon.
<http://aginfo.trinet.com/>

Government Databases

http://www.access.gpo.gov/su_docs/

Weed Science Society of America
<http://www.uiuc.edu/ph/www/wssa>

University of Nebraska-Lincoln, Institute of Agriculture & Natural Resources (IANR), Environmental Program WWW Home Page
<http://ianrwww.unl.edu/ianr/pat/ephome.html>

American Crop Protection Association
(See its "WWW Sites of Interest." It's a link to 64 other web sites in the following areas: agriculture/food safety, crop protection companies, government, international, news/media, science, and subject directories and search engines.)
<http://www.acpa.org>

Extoxnet (The Extension Toxicology Network)
<http://www.oes.orst.edu:70/1/ext/extoxnet>

American Association of Pesticide Safety Educators (AAPSE)
<http://www.vtpp.ext.vt.edu:1080/aapse.html>

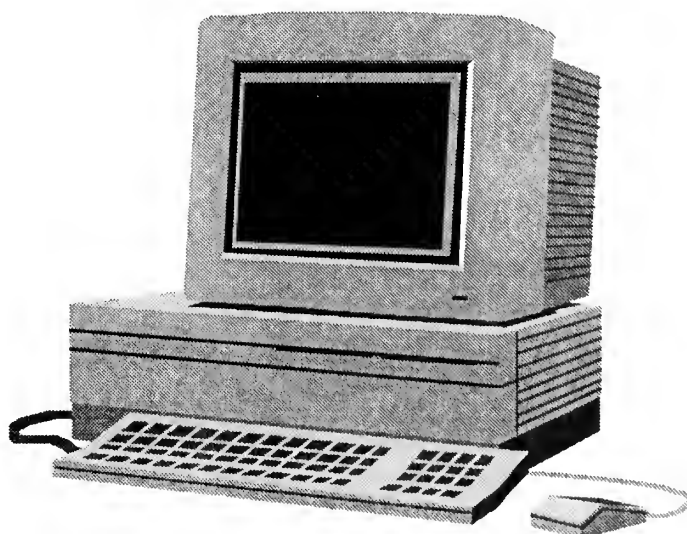
The Ecosystem (Environmental Information Service)
<http://www.gold.net/ecosystem/>

Purdue University (Virtual Plant and Pest Diagnostic Laboratory)
<http://www.aes.purdue.edu/ppdl/p&pdlwww.html>

Environmental Working Group
<http://www.ewg.org/>

Agriculture Online
<http://www.agriculture.com>

Editor's note: The Pesticide Applicator Training team is pursuing a home page for pesticide safety education programs at the University of Illinois. I envision the home page starting with a listing of private and commercial pesticide clinics, pesticide-related publications, this newsletter online, and links to other related home pages. I will keep you posted on its progress.
Rhonda Ferree ▲



Index of 1995 Issues

Awards

FS Company Nets Governor's
Pollution Prevention Award, 1:7

Containers

Pesticide Containers Recycled, 2:7

Endangered Species

The Bald Eagle, 4:6
Endangered Species Act, 3:7

EPA Reports

EPA's Reduced-Risk Initiative,
1:6
OPP Annual Report for 1994, 3:6

FDA Reports

FDA Pesticide Monitoring, 3:8

IL PAT Update

1995-1996 PAT Clinics, 4:2
New PAT Team Member, 1:2
PAT Committee Structure, 4:7

Internet

Regional PAT Gopher, 1:7

Legislative Updates

Delaney Clause, 2:8
Federal Legislative Update, 2:6,
3:8
Fifra/Delaney Clause, 4:6
Illinois Legislative Updates, 2:7,
3:6, 4:5

Meetings

National PAT Conference, 2:2
SFIREG Update, 1:5
Synopsis of AAPCO Meeting, 2:1

Pesticide Perception

Perceptions of Agrichemicals, 3:1

Pesticide Reviews

2,4-D And MCPA, 4:5
Cyanazine Phaseout, 4:7
Pesticide Update, 1:3, 2:3, 3:3, 4:3
Plant-Pesticide Proposal, 1:5
Triazine Pesticide Review, 1:7, 2:8
U of I Atrazine Studies, 4:8

Poison Control Centers

Poison Control Centers, 4:8

Posting

EPA's Lawn Posting Guide, 1:1

Personal Protective Equipment

Personal Protective Equipment
(Ppe) Standards, 1:6

Pesticide Recordkeeping

Pesticide Recordkeeping Changes,
2:6

Resources

Agriculture Compliance Assis-
tance Center, 3:2
EPA Hotline, 1:2

WPS

EPA Questions And Answers,
2:WPS-2
Glove Specifications, 1:WPS-2
Guidance on Issuance of WPS
Enforcement, 2:WPS-2
Internet Forum on Worker Protec-
tion Standard, 1:WPS-1
Senate Ag Hearing, 2:WPS-1
WPS Amendments, 2:WPS-1
WPS Enforcement Action,
1:WPS-1
WPS Labeling Revisions, 4:1
WPS Proposals, 1:WPS-2

*The development and/or
publication of this newsletter
has been supported with
funding from the Illinois
Department of Agriculture.*



*Rhonda J. Ferree
Extension Horticulturist
Pesticide Safety Education*

The Illinois Pesticide Review



News About Pesticides and Regulations



JUN 19 1999

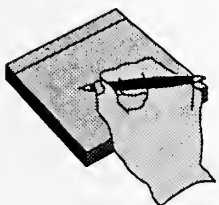
G Libr

1201 S. Dorner Dr. • Urbana, IL 61801 • (217) 244-4397

May 1996

Vol. 9, No. 2

AAPSE/AAPCO Meeting Report



A joint meeting of AAPSE (American Association of Pesticide Safety Educators) and

AAPCO (American Association of Pesticide Control Officials) was held March 11 to 13 in Washington, DC. Rhonda Ferree represented the University of Illinois at these meetings. The discussions pertinent to Illinois are summarized below.

base of pesticide complaints received and investigated. He received data from 32 of the 52 mailings. Ground applicator complaints were double aerial applicator complaints, with commercial agricultural application involved in the majority of the complaints. Paraquat, clomazone, and 2,4-D were the products most commonly investigated. The most common penalty given was a warning, although 10 criminal actions were taken across the country.

versity of Illinois, is member of the national coalition looking at these issues. They are working on developing educational materials to reduce drift. The end goal is behavioral change of applicators, which will ultimately reduce drift.

Environmental Estrogens

Janis McFarland from Ciba gave an excellent talk on environmental estrogens and their link to breast cancer. A recently published book, *Our Stolen Future*, states

(continued on page 2)

Program Emphasis (Drift)

Much discussion focused on the issue of drift. John Impson announced an electronic discussion group for educators and others interested in drift management. The list name is Drifters. You can join by sending a message to majordomo@reeusda.gov with the subject as "new list." In the body of the message, type in: "subscribe drifters" and include an e-mail address.

Reports were given by researchers and the EPA on the Spray Drift Task Force (SDTF) studies. The purpose of the task force was to quantify drift from four areas: air blast, ground, chemigation, and aerial. All the research has been completed, and the data forwarded to the USEPA. Preliminary analysis showed that drift from ground application was most affected by droplet size, chemigation by application height, air blast by canopy type, and aerial by a combination of factors.

A National Initiative on Drift Management has been formed from the work of the SDTF. Bob Wolf, Extension specialist in agricultural engineering from the Uni-

In This Issue

AAPSE/AAPCO Meeting Report	1
Editorial Comment	2
Pesticide Update	3
Reduced Risk Pesticide Exemption	7
Pesticide Recordkeeping Software	7
Safe, New Pest Management Practices	8
Pesticide Container Recycling Program	8

College of Agricultural, Consumer and Environmental Sciences
University of Illinois at Urbana-Champaign, Urbana, Illinois
State/County/Local/U.S. Department of Agriculture Cooperating

The Illinois Cooperative Extension provides equal opportunities in programs and employment

The Illinois Pesticide Review newsletter is sent four to six times per year to Extension personnel, specialists, and others who are interested in the safe and effective use of pesticides. Its primary purpose is to provide concise information on legislation, regulations, and other developments directly impacting pesticide use in Illinois. Please direct comments and suggestions about this newsletter to the Pesticide Applicator Training (PAT) team of Rhonda Ferree, Phil Nixon, Bruce Paulsrud, Dennis Thompson, and Bob Wolf.

The information given herein is provided for educational purposes only. Reference to pesticide trade names does not imply endorsement by the University of Illinois, nor is discrimination intended against any product.

AAPSE/AAPCO Meeting Report (cont.)

that pesticides are environmental estrogens and directly linked to breast cancer, among other things. She showed data that confirmed no herbicides or fungicides are estrogens, but that the insecticides DDT, dieldrin, endosulfan, and methoxychlor are estrogens. She also pointed out that many other widely used products are also estrogens, including birth control pills, breast cancer drugs, vegetables (especially cabbage), beef, garlic, marijuana, and complex sewage effluent. McFarland showed data indicating that breast cancer was not more prevalent where DDT was used, nor did stopping DDT use lead to decreases in breast cancer. She feels the literature shows no correlation between pesticide exposure and breast cancer. Obviously, McFarland's interpretation of the data is quite different from the opinions given

in *Our Stolen Future*. I am sure this debate will rage on well into the future.

Metam-Sodium

Robert Bielarski from USEPA reported on metam-sodium, a specialty product used to control roots in sewers. EPA has decided to restrict its use, thus requiring everyone using it to be a licensed applicator. There is much confusion among the states as to which licensing category this falls into. A study manual has been developed. On another note, the USEPA is considering restricting the use of chlorine gas for swimming pool use in 1997.

Overall, the meetings were very productive and informative. Although only 3 years old, AAPSE is starting to make progress through member numbers and contacts.

(Rhonda Ferree's meeting notes)▲

Editorial Comment

The 1995–1996 annual report on Illinois's Pesticide Safety Education Programs is now available. The 20-page document highlights program goals and mission, program structure, benefits of our program, and major accomplishments, including educational material development, pesticide-container recycling, commercial PAT programs, private PAT programs, Worker Protection Standard (WPS), homeowner programs, drift-education activities, opera-

tion-safe fly-in workshops, and many other programs. The report demonstrates the depth and breadth of Illinois' Pesticide Safety Education Programs. Although commercial and private PAT is our first mission, we also provide quality pesticide education to a diverse audience in other pesticide-related program areas.

Please contact Rhonda Ferree (217-244-4397) for a copy of the annual report. ▲

Pesticide Update

The following information provides registration status of particular pesticides and should not be considered as pesticide recommendations by the Illinois Cooperative Extension Service.

Agronomic

Aztec (tebupirimphos/cyfluthrin), Bayer

Received EPA approval for use on corn at planting to control rootworms, cutworms, wireworms, white grubs, seed corn maggot, and seed corn beetle.

Bayleton (cyfluthrin), Bayer

Received EPA registration for use on alfalfa, sunflowers, and sweet corn to control several insects.

Bladex/Cy-Pro (cyanazine), DuPont/Griffin

The proposed schedule for phase one of this product is as follows: 7-24-96 to 12-31-96, all labels of end-use products will state the product cannot be sold or distributed after 9-30-2002; on 12-31-90 to 9-39-2002, all products released by a registrant may continue to be sold in channels of trade until 9-30-2002; on 9-30-2002 to 13-31-2002, all remaining stock in the channels of trade must be used so a recall will not be necessary.

Command 3ME (clomazone), FMX

This new formulation allows for surface, broadcast, or banded application on soybeans without soil incorporation.

Contour (imazethapyr/atrazine), American Cyanamid

New additions to the label for use on corn include aerial application and a tank mix with Accent.

Detail (imazaquin/dimethenamid), American Cyanamid

Formerly sold as a co-pack, it is now a premix formulation for use on soybeans.

Dual (metolachlor), Ciba

In Illinois, may be fall-applied to corn after October 15 when the soil temperature is less than 50°F.

Flexstar (formisafen), Zeneca

Received EPA registration for use on soybeans as a postemergence treatment.

lumiclorac (V-23031), Valent

A new postemergent herbicide for broadleaf weed control in corn and soybeans.

Force 3G/1.5G (tefluthrin), Zeneca

The signal word is now "caution" on these two products.

Fortress 5G (chloroethoxyfos), DuPont

Limited quantities will be made available this year in Illinois to control rootworms on corn.

Guardsman (dimethenamid/atrazine), Sandoz

Received EPA registration to use on sweet corn and grain sorghum.

Harness Xtra 5.6L (acetochlor/atrazine), Monsanto

This new premixture will be available for use on corn this next season.

Maxim (fludioxonil), Ciba

A new seed treatment registered on corn and sorghum to control *Fusarium* spp.

Permit (halosulfuron-methyl), Monsanto

Added to their label, the use on corn in a tank mix with Buctril plus Atrazine.

Poast Compatible Corn

These are corn hybrids genetically engineered to be resistant to sethoxydim herbicide sprayed over-the-top for weed control. Seed is available from Asgrow, Cargill, DeKalb, and Interstate Payco.

Prowl (pendimethalin), American Cyanamid

Received an EPA label to tank mix with Accent for use on corn.

Raze (tefluthrin), Wilbur Ellis

A new seed treatment formulation to be used on corn to control wireworms.

Resolve (imazethapyr/dicamba), American Cyanamid

Added to their label the tank mix with Accent, on corn.

Roundup Ultra (glyphosate), Monsanto

A new formulation recently introduced that is rainfast within 1 to 2 hours, has no need for additional surfactants or additives, and has the signal word changed from "warning" to "caution."

(continued on page 4)

Sencor (metribuzin), Bayer

Obtained EPA registration to use as a burndown treatment on no-till corn and as a preemergence treatment on corn.

Scorpion III (flumetsulan/clopyralid/2,4-D), DowElanco

A new three way combination herbicide recently registered for use on corn.

Status (acifluorfen-sodium), American Cyanamid

A new product for this company, being introduced for postemergence broadleaf weed control in soybeans.

Steel (imazaquin/imazethapyr/pendimethalin), American Cyanamid

A new co-pack of Scepter and Pursuit Plus, being introduced this year as a preplant or preplant-incorporated treatment on soybeans.

Stellar (lactofen/flumiclorac pentyl ester), Valent

A new combination herbicide for postemergent use on soybeans.

Surpass 20G (acetochlor), Zeneca

This new formulation for use on corn will be available this season.

Treflan (trifluralin), DowElanco

In 1996, only two liquid formulations will be marketed. Treflan HFP replaces Treflan MTF and Treflan 5. Treflan EC will also be marketed.

Touchdown (sulfosate), Zeneca

EPA has registered this product

for use on corn as a preplant or preemergence burndown treatment on no-till corn, either applied alone or in a tank mix.

Tough (pyridate), Sandoz

New tank mixes for use on corn have been added to the label: Guardsman, Frontier, Accent, Beacon, Exceed, and Permit.

Many*Amistar (azoxystrobin/ICIA-5504), Zeneca*

This this new fungicide will be sold as Heritage in the United State, for use on turf, cereals, fruit trees, vegetables, grapes, and canola.

Cleary 3336 (thiophanate-methyl), W.A. Cleary

New labeling includes a 12-hour reentry interval, expanded-use sites, approval for backyard non-commercial fruit trees, and the control of basal-stem anthracnose on turf.

Diazinon, Ciba

Due to the high cost of reregistration, the following uses probably will not be supported and will be removed from the label by 8-31-96: alfalfa, bermudagrass, clover, corn, grass forage, pastures, pecans, rangeland, sorghum, and soybeans.

Early Harvest PGR (cytokinins/GA/IBA), Griffin

A new growth regulator for use on vegetables, strawberries, corn, sorghum, soybeans, wheat, and turf to promote earlier maturity.

Gemstar LC (Helicoverpa zea NPV), Biosys

A new biological insecticide, used to control corn earworms on vegetable, field crops, and ornamentals.

Mesurool (methiocarb), Bayer

EPA has received a notice of intent to voluntarily cancel the registration for this product.

Phosdrin (mevinphos), Amvac

This product was cancelled, effective 12-1-95. Amvac will take back (with reimbursement) any product that is in the trade channels up to 7-27-96.

Pounce (permethrin), FMC

Changed the reentry interval from 24 hours to 12 hours.

Proclaim/Banlep (ememectin), Merck Ag Vet

A new compound to control lepidoptera and other insects in leafy vegetables, cole crops, eggplant, tomatoes, peppers, corn, and soybeans.

Radius (B.t.), Sandoz

A new formulation that will be available for the 1996 season.

Spod-XLC (Spodoptera exigua NPV), Biosys

A new biological insecticide developed to control beet armyworm in vegetables, field crops, and ornamentals. It will be distributed exclusively by Helena Chemical Co.

(continued on page 5)

Turf/Ornamental

3336F (thiophanate-methyl), W.A. Cleary

Received an expanded EPA label with a 12-hour preharvest reentry period. It can now be used in nurseries, greenhouses, landscapes, interiorscapes, backyard noncommercial fruit trees; and for basel-stem anthracnose on turf.

Banner MAAX (propiconazole), Ciba

A new microemulsion formulation being introduced this year that offers improved handling, tank-mix compatability, and stability characteristics.

Barricade (prodiamine), Sandoz

Added to their label, the control of several additional weeds and use on 26 additional ornamental species.

Bonzi (paclobutazol), Uniroyal

Added to their label for this growth regulator, the use on dahlias.

Casoron 4G (dichlobenil), Uniroyal

Added to their label, use on hybrid cottonwood, poplar plantations, and stoolbeds.

Citation (cyromazine), Ciba

As a result of the IR-4 Project, 16 new ornamental species can be added to this label.

Derby (metolachlor/simazine), Ciba

As a result of the IR-4 Project, 20 new ornamental species can be added to this label.

Funginex (triforine), Ciba

As a result of the IR-4 Project, 23 new ornamental species can be added to this label.

Knox-Out (diazinon), W.A. Cleary

Received an expanded label for use on nursery and commercial landscapes, as well as greenhouses and interiorscapes. Added poinsettia use and whitefly suppression.

Oust (sulfometuron), DuPont

As a result of the IR-4 Project, balsam fir, douglas fir, and white pine can be added to this label.

Provado (imidacloprid), FMC

Received an EPA label for use on Christmas trees to control aphids, adelgids, and sawflies.

Ridomil (metalaxyl), Ciba

As a result of the IR-4 Project, 30 new ornamental species can be added to this label.

Scimitar CS (lambda-cyhalothrin), Zeneca

Received EPA approval for use on golf courses to control several turf insects.

Strike 25 (triadimefon), Olympic

Added to their label the use on hydrangea and poinsettia.

Surflan (oryzalin), DowElanco

As a result of the IR-4 Project, 65 new ornamental species can be added to this label.

Turfcide 400/Terraclor 400 (PCNB), Uniroyal

Added a number of landscape plantings, cut-flower species, and vegetable bedding plants to this label.

Other

B-Nine (daminozide), Uniroyal

Changed the signal word from "caution" to "danger."

DuPont

The company is moving its existing business teams out of the Wilmington DE office. The corn and soybean team will be located in Indianapolis, IN, the cereals team in Denver, CO, and the specialty business team in Memphis, TN.

FMC

The company has signed an agreement with Scotts Co. for them to be the exclusive marketer of Talstar and Astro insecticides.

Imidan (phosmet), Gowan

The company has taken over the worldwide business for this product from Zeneca.

Monsanto

The company will pay up to \$158 million to Dekalb Genetics to become their second-largest voting member. These companies also announced cross-licensing of each others' research on herbicide-tolerant and insect-tolerant corn.

Mycogen

The company has released two new corn hybrids with *B.t.*-based European corn borer resistance.

(continued on page 6)

Novartis

This will be the name of the new company formed by the merger of Ciba and Sandoz.

Valent

The company has ended a 4-year cooperative marketing agreement with American Cyanamid on their postemergence herbicides Cobra and Select. Valent will now offer these two herbicides independently.

Structures

Demand Pestab (lambda-cyhalothrin), Zeneca

A new tablet formulation that is premeasured to an exact dose for use in and around structures, to control cockroaches, fleas, flies, ants, and other insects.

D-Cease (difethialone), Farnam

A new formulation recently introduced to control rats and mice.

Vegetable/Fruit

Apron 50W (metalaxyl), Ciba

Added to their label the use on carrots.

BSP Lime Sulfur, Best Sulfur Products

Received an EPA label to use on blueberries.

Crymax (B.t.), Ecogen

Received registration for this genetically engineered *B.t.* insecticide on vegetables, fruit, and nut trees and grapes to control lepidoptera insects.

Cryolite, Elf Atochem/Gowan

Due to the high cost of reregistration, uses that will probably not be supported include apples, beans, collards, mustard, radishes, and turnips.

Disrupt CM, OFM, & PTB (pheromone), Hercon

Three new mating-disruption pheromone formulations for use on fruits to control codling moth (CM), Oriental fruit moth (OFM), and peach twig borer (PTB).

Ferbam, UCB Chemical Corp.

Due to the high cost of reregistration, they have proposed to EPA to delete from their label the use on almonds, apricots, blueberries, currants, gooseberries, plums, prunes, and quince. Unless withdrawn, this will become effective on April 30, 1996.

Imidan (phosmet), Gowen

Received a 24(c) label in Illinois for use on blueberries to control blueberry gall midge and cranberry fruit worm.

Kocide 101 (copper hydroxide), Griffin

Added to their label the use on parsley.

Mustang (cypermethrin), FMC

Cabbage, bulb onion, garlic, and shallots were added to this label.

Rally (myclobutanil), Rohm & Haas

Received EPA registration for use on apricots, plums, and prunes to

control brown rot, blossom blight, powdery mildew, shothole, and rust.

Rely (glufosinate-ammonium), AgrEvo

A new nonselective herbicide used to control emerged weeds in apples, grapes, and nut crops.

Ridomil Bravo 81W (metalaxyl/chlorothalonil), Ciba

Added to their label the use on carrots

Savey (hexythiazox), Gowan

Received EPA registration for use on apples to control mites.

Thinex (pelogonic acid), Mycogen

This product should be available this season as a thinning agent on certain varieties of apples.

Ultima 160 (sethoxydim), BASF

A new formulation registered for use on dry beans, canola, rape seed, flax, and sunflowers.

(Unless otherwise noted, adapted from *Agricultural Chemical News*, January 1996, February 1996, March 1996, April 1996) ▲

Reduced Risk Pesticide Exemption

On February 18, a new rule was finalized that exempts certain low-risk substances used as pesticides from regulation under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). The USEPA has determined that the substances covered by the exemption pose little or no risk to public health or the environment. The exemption rule will, however, relieve producers of the costs and resources expended in obtaining pesticide registrations, provided certain labeling requirements are met.

To qualify for exempt status, pesticide products may contain only active ingredients that have been specifically exempted by EPA and only those inert ingredients that have been identified by EPA as "minimum risk." Some of the products included on this list

are castor oil, citronella, cloves, dried blood, garlic, and soybean oil. In developing the list of exempt substances, EPA considered

- if the pesticidal substance is widely available to the general public for other uses;
- if it is a common food or constituent of a common food;
- if it has a nontoxic mode of action;
- if it is recognized by the Food and Drug Administration as safe;
- if there is no information showing significant adverse effects;
- if its use pattern will result in significant exposure; and
- if it is likely to be persistent in the environment.

The labels of exempt products must list all active ingredients by percentage, as well as all inert in-

gredients. Labels must also comply with established regulations regarding false and misleading statements and cannot bear claims that the pesticide will control or mitigate microorganisms that pose a threat to human health, such as disease-transmitting bacteria or viruses, or claims that specify possible control for diseases carried by insects or rodents.

The rule is another of EPA's actions taken in response to the President's request to reinvent government by reducing regulatory burdens and lowering costs.

(Adapted from EPA news release, March 4, 1996 and *Federal Register*, Vol 61, Number 45, pages 8876-8879) ▲

Pesticide Recordkeeping Software

Recordkeeping of the application of restricted use pesticides is required in all states for all pesticide applicators. The basis for this requirement is the federal pesticides law, the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). In some specific cases, recordkeeping of general use pesticides is also required by regulatory agencies.

Computer software is available to document the record of pesticide usage. The use of computers and pesticide-related software can make recordkeeping

easier and more convenient. In addition, accurate pesticide recordkeeping can aid future pest management decisions and allow easier compliance to regulatory requirements.

The University of Nebraska-Lincoln has consolidated a list of about 15 software packages in UNL's Pesticide Education Resources web page (<http://ianrwww.unl.edu/ianr/pat/ephome.html>). See the menu item *Pesticide Laws and Regulations* for the software list. Information about new pesticide recordkeeping

software entries are being added as they become known. If additional software packages are known and not listed or if updates to the entries are desired, UNL welcomes information on them. Hypertext linkages are made from the software list in the web site directly to the commercial firms' email addresses and web pages where available.

(Adapted from the University of Nebraska-Lincoln's *THE LABEL*, March 1996) ▲

Safe, New Pest Management Practices

On April 18, U.S. Department of Agriculture Deputy Secretary Richard Rominger and Environmental Protection Agency (EPA) Assistant Administrator Lynn Goldman signed an agreement that will increase research on and speed the approval of environmentally sound pest management practices.

"This agreement is an integral part of USDA's Integrated Pest Management Initiative, which will provide more farmers with the new tools they need to remain productive and competitive while protecting the environment," said Rominger.

"By increasing our strong cooperative efforts, we will be able to reduce risk and increase the use of environmentally friendly farming practices," Goldman added.

Since 1994, USDA and EPA have had an agreement in place to foster cooperative efforts for developing alternatives to pesticides that have been identified as likely to be subject to cancellation or suspension by EPA. The new agreement will allow USDA and EPA to focus attention on providing replacements for pesticides that have been lost through voluntary cancellations based on risk or economic concerns, as well as those

that are the focus of formal EPA regulatory action. This will be of special importance for producers of minor crops, such as many fruits and vegetables, who may face a lack of safe and effective pest management alternatives. (Minor-crops uses are generally defined as those for which the anticipated pesticide sales revenues do not appear to pesticide manufacturers likely to justify the expense of developing and registering a pesticide product.)

(USDA News Release # 0196.96 from the USDA Home Page at <http://www.usda.gov>) ▲

Pesticide Container Recycling Program

Nearly 214,500 agrichemical containers were collected by the Illinois Department of Agriculture and various groups for recycling in 1995, 76 percent more than in 1994. The number of pesticide-container collection sites also rose, to 89 in 1995, up from 43 two years earlier. The number of planned collection sites will drop slightly in 1996 because the program will offer up to four long-term recycling stations, which will be announced as soon as details are available.

Illinois Department of Agriculture Director Becky Doyle says

she is "very pleased with the dramatic growth in participation." This is the third year for the recycling program. A new regulation prohibiting dealers from openly burning containers at facilities may have contributed to the large increase.

The 1996 pesticide-container recycling program sites are already scheduled. Seventy locations will collect pesticide containers in June, July, and August. Brochures are available from the Illinois Department of Agriculture, Bureau of Environmental Programs.

(Adapted from *Prairie Farmer*, February 1996; and IDA brochure on "Pesticide Container Recycling Program") ▲

The development and/or publication of this newsletter has been supported with funding from the Illinois Department of Agriculture.



*Rhonda J. Ferree
Extension Horticulturist
Pesticide Safety Education*

The Illinois Pesticide Review



News About Pesticides and Regulations



SEP 12 1996

AG Library

1201 S. Dorner Dr. • Urbana, IL 61801 • (217) 244-4397

Vol. 9, No. 3

August 1996

The Food Quality Protection Act of 1996



The Food Quality Protection Act of 1996 (P.L. 104-170) amends both the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Federal Food, Drug, and Cosmetic Act (FFDCA). Among other things, this new law replaces the 38-year-old Delaney clause with a standard. According to Carol Browner, USEPA administrator, "It strengthens standards to limit the health risks of pesticide exposure, includes special new provisions to protect children, and expands the consumer's right to know about pesticide risks."

For over two decades, there have been efforts to update and resolve inconsistencies in the two major pesticide statutes, but consensus on necessary reforms has been elusive. Many people are surprised that this legislation came through so quickly. A *Washington Post* writer was amazed that "a Congress that was supposed to be incapable of compromise on environmental issues" has compromised on a bill that has eluded legislators for years and the *New York Times* was surprised by how

quickly the agreement came together.

The bill passed Congress on July 25, 1996, in a 417-to-0 vote. President Clinton signed the bill into law on August 3, 1996, saying, "I like to think of this as the 'peace of mind' act, because it'll give parents the peace of mind that comes from knowing that the fruits, the vegetables, the grains that they put down in front of their children are safe. It's long overdue. The old safeguards that protected our food from pesticides were written with the best of intentions, but they weren't up to the job. And as you can see from the vast array of support here across every specter of America life, nobody liked them very much and no one thought that they really worked as they were supposed to. Bad pesticides stayed on the market too long, good alternatives were kept out. In this new provision we deal with the problem of existing law, which is that there are strong protections against cancer, but not against other health dangers. There is simply no uniform standard for what's safe."

Following are highlights of the new law.

FFDCA PROVISIONS

Strengthens Current Law with a Health-based Safety Standard: The bill establishes a strong, health-based safety standard for pesticide residues on all foods. It uses "reasonable certainty of no harm" as the general safety standard.

- A single, health-based standard eliminates long-standing problems posed by multiple standards for pesticides in raw and processed foods.

(continued on page 2)

In This Issue

The Food Quality Protection Act of 1996	1
Pesticide Update	3
Farmers' Pesticide Use On the Rise	5
Pesticide Reregistration Update	5
Endocrine Disruptors, Pesticides	6
Pesticides and Ground Water Strategy	7
Worker Protection Standard Amendments	7
Local Pesticide Regulation	8
Pesticide Related Web Sites ...	8

The Food Quality Protection Act of 1996 (cont.)

- Requires the EPA, when setting tolerances, to consider all non-occupational sources of exposure, including drinking water, and exposure to other pesticides with a common mechanism of toxicity.

Special Provisions for Infants and Children: The bill incorporates language to implement key recommendations of the National Academy of Sciences report "Pesticides in the Diets of Infants and Children."

- Requires an explicit determination that tolerances are safe for children.
- Includes an additional safety factor of up to tenfold, if necessary, to account for uncertainty in data relative to children.
- Requires consideration of children's special sensitivity and exposure to pesticide chemicals.

Limitations on "Benefits" Considerations: Unlike current law, which contains an open-ended provision for the consideration of a pesticide's "benefits" when setting tolerances, the bill would place specific limits on benefits considerations.

Tolerance Reevaluation: Requires that all existing tolerances be reviewed within 10 years to make sure they meet the requirements of the new health-based safety standard.

Endocrine Disruptors: The bill incorporates the Safe Drinking Water provisions for endocrine testing, and it also provides new authority under FFDCA to require that chemical manufacturers provide data on their products, including data on potential endocrine effects.

Enforcement: Includes enhanced enforcement of pesticide residue standards by allowing FDA to impose civil penalties for tolerance violations.

Right to Know: Requires distribution of a brochure in food stores on the health effects of pesticides, on how to avoid risks, and on which foods may contain higher pesticide residues because of benefits considerations. The bill also specifically recognizes a state's right to require warnings or labeling of food that has been treated with pesticides.

Uniformity of Tolerances: States will be unable to set tolerance levels that differ from national levels unless the state petitions EPA to set a tolerance based on state-specific situations. National uniformity, however, would not apply to tolerances that included benefits considerations.

FIFRA PROVISIONS

Minor Use Pesticides:

- Encourages "minor use" registrations through extensions for submitting pesticide residue data, extensions for exclusive use of data, flexibility to waive certain data requirements, and requiring EPA to expedite review of minor use applications.
- Establishes minor-use programs within EPA and USDA to foster coordination on minor-use regulations and policy, and provides for a revolving grant fund to support development of data necessary to register minor-use pesticides.

(continued on page 8)

The Illinois Pesticide Review newsletter is sent four to six times per year to Extension personnel, specialists, and others who are interested in the safe and effective use of pesticides. Its primary purpose is to provide concise information on legislation, regulations, and other developments directly impacting pesticide use in Illinois. Please direct comments and suggestions about this newsletter to the Pesticide Applicator Training (PAT) team of Rhonda Ferree, Phil Nixon, Bruce Paulsrud, and Bob Wolf.

The information given herein is provided for educational purposes only. Reference to pesticide trade names does not imply endorsement by the University of Illinois, nor is discrimination intended against any product.

Pesticide Update

The following information provides registration status of particular pesticides and should not be considered as pesticide recommendations by the Illinois Cooperative Extension Service.

AGRONOMIC

Acclaim Extra (fenoxaprop-ethyl), Agr Evo

A new formulation that contains 0.57 pound/gallon active ingredients. It will replace Acclaim IEC.

Bicep II (atrazine/metolachlor), Ciba

Received an EPA label for early postemergence use on corn; to apply before the crop reaches 5 inches in height and before weeds pass the two-leaf stage.

Broadstrike Plus (flumetsulam/clopyralid), DowElanco

Received an EPA label to allow use as a postemergence application on corn up to 24 inches tall.

Buctril 4EC (bromoxynil), Rhone Poulenc

Added to their label the control of giant ragweed, kochia, lanceleaf sage, Russian thistle, tall morningglory, and wild okra.

Manifest (acifluorfen-sodium/bentazon/sethoxydim), BASF

A new formulation available this year for use on soybeans.

Moxynil + Atrazine (bromoxynil/atrazine), Terra Ind.

A new formulation recently introduced for use on corn and sorghum as a postemergence herbicide.

Peak (prosulfuron), Ciba

Received EPA registration on

small grains, proso millet, and sorghum to control several weeds.

Pounce (permethrin), FMC

Application to corn can now be made with either preplant-incorporated or preemergence herbicides.

Roundup Ultra (glyphosate), Monsanto

Received an EPA registration to apply to alfalfa prior to harvest to control quackgrass and other weeds.

Surpass (acetochlor), Zeneca

Received EPA registration to use as an early postemergence application on corn until corn is 11 inches tall. Surpass 20G is a new formulation available for use on corn.

MANY

Crymax (B.t. strain EG 7841), Ecogen

A new insecticide recently registered on numerous crops to control lepidoptera insects.

Funginex (triforine), American Cyanamid

Due to the high cost of reregistration, the company has decided not to support this product.

Ridomil, Subdue, Apron (metalaxy), Ciba

On May 1, 1996, Ciba Crop Protection proposed to voluntarily cancel all registrations of the

widely-used fungicide metalaxyl (e.g., Ridomil, Subdue, Apron), and its other end-use products. This motion was delayed when EPA was asked to re-open the comment period for the voluntary cancellation. Relating to this issue is the recent registration of mefenoxam by Ciba which will replace all current registered uses of metalaxyl. It is Ciba's claim that mefenoxam (an isomer of metalaxyl) is as effective as metalaxyl, but at half the rate. (Bruce Paulsrud, adapted from the *Federal Register*, May 1, 1996 and July 19, 1996)

Sevin 80WSP (carbaryl), Rhone Poulenc

A new packaging is now available called saddlebags. This consists of eight 1.25-pound water-soluble (WS) packets. Four saddlebags are then packaged together in a 40-pound box.

OTHER

Agr Evo

The company has moved its Midwest research facility from Wonder Lake, IL, to a 150-acre facility in Champaign County, IL.

STRUCTURAL

Torus (fenoxycarb), Ciba

The company has decided to voluntarily withdraw this product from the marketplace when used for flea and roach control.

(continued on page 4)

Pesticide Update (cont.)

TURF/ORNAMENTALS

Bonzi (paclobutrazol), Uniroyal
A newly registered label for this growth regulator allows the use in nurseries and other outdoor production areas.

Cruiser (Heterorhabditis bacteriophora), Ecogen
A new nematode formulation used to control various insects in turf and ornamentals.

Envoy, (clethodim), Valent
A new formulation being marketed to control grasses in ornamentals.

Fireban (tefluthrin), Uniroyal
Label changes include changing the signal word from warning to caution. Also added for soil incorporation into potting media used in containerized planting stock.

Junction (mancozeb), Griffin
A new formulation for use on ornamentals.

Kelthane (dicofol), Rohm & Haas
Deleted from their label the use on residential home lawns.

Imidan (phosmet), Gowan
Added to their label the use on walnuts to control codling moth.

Pentathlon (maneb), Griffin
A new formulation available for use on ornamentals.

Primo (trinexapac-ethyl), Ciba
The expanded label for this plant growth regulator now allows the use on carpetgrass, buffalograss, and St. Augustine grass.

Topside (lambda-cyhalathrin), Uniroyal
A new formulation available in water-soluble packs to control insects on ornamentals grown in greenhouses and shadehouses.

VEGETABLE/FRUIT

Accent (nicosulfuron), DuPont
Recently received a label to use on certain sweet corn hybrids.

Assure II (quinalofop-p-ethyl), DuPont
Received EPA registration to use on sugarbeets, peas, and beans.

Dibrom (naled), Valent
Added to their label the use on eggplant, peppers, melons, and summer squash. Due to the cost of reregistration, uses on several fruits and vegetables will probably be deleted from the label.

Kryocide (cryolite), Elf Atochem
Added to their label the use on eggplant and collards, while the use on mustard has been deleted.

Mankocide (mancozeb/copper hydroxide), Griffin
A new combination product for use on several fruits and vegetables.

Meta Systox-R (oxydemeton-methyl), Gowan
Added to their label the control of thrips on cabbage.

Omite/Comite (propargite), Uniroyal
The company has voluntarily can-

celed the following uses from this product: apricots, apples, peaches, pears, plums, strawberries, cranberries, green beans, and lima beans.

Provado (imidacloprid), Bayer
Added to their label the use on pears, to control several insects.

Raven (B.t. strain EG 7673), Ecogen
A new insecticide recently registered to control lepidoptera and coleoptera insects on potatoes, tomatoes, and eggplant.

Rovral (iprodione), Rhone Poulenc
Due to the high cost of reregistration, the company has voluntarily deleted from their label the postharvest use on sweet cherries, nectarines, peaches, and plums.

Stinger (clopyralid), DowElanco
Received a supplemental label to use before, during, or after harvest on asparagus.

Trigard (cyromazine), Ciba
Received a supplemental label to use on tomatoes to control leaf miners; with a 7-day preharvest interval.

CORRECTION (The following error was discovered in the May 1996 issue)
Agronomic Section: Bayleton is actually Baythroid.

(Adapted from *Agricultural Chemical News*, May 1996, June 1996, and July 1996) ▲

Farmers' Pesticide Use On the Rise

According to unpublished government data, agriculture used 1.25 billion pounds of herbicides, insecticides, and fungicides in 1995. In 1994, 1.23 billion pounds were used.

The environmental groups that obtained the data and released them said the numbers contradict claims by the chemical industry and farm groups that they are cutting pesticide use.

Industry groups said the numbers reflect more acreage planted to major crops such as corn, cotton, wheat, and soybeans, and more weather-related pest problems, especially insects on cotton. They said the numbers also show a switch to more environmentally friendly compounds, like the sul-

fur favored by organic growers, and pest-control methods that require as much as 10 times the amount of applications per acre than for synthetics.

Among those products showing increases between 1993 and 1995 were methyl bromide, sulfur, petroleum oil, and glyphosate (Roundup). Methyl bromide, a soil fumigant, is being phased out because of damage to the ozone layer. The herbicides atrazine, cyanazine, and alachlor all showed declines, while acetochlor use more than doubled.

The USEPA confirmed the finding of the Natural Resource Defense Council and the U.S. Public Interest Research Group. Dr. Lynn Goldman, EPA associate

administrator said, "We're concerned and have been concerned about the quantities of pesticides applied in this nation." The environmental groups had released the figures as part of a campaign against two proposed bills that they say would weaken safety standards for pesticides in foods. The Food Quality Protection Act of 1996 was signed into law by President Clinton on July 31.

(Adapted from Environmental Protection, July 1996; The Associated Press via email, May 19, 1996; PANUPS (Pesticide Action Network North America Updates Service), via email, June 7, 1996) ▲

Pesticide Reregistration Update

The 1988 Amendments to the Federal Insecticide, Fungicide, and Rodenticide Act required EPA to reregister all pesticides first registered before November 1, 1984. Reregistration consists of obtaining a substantially complete set of data on each pesticide chemical in accord with current scientific standards, scientifically evaluating the potential health and environmental effects, and determining what risk-mitigation measures may be needed.

In 1988, approximately 600 groups of related pesticide active ingredients—or cases representing

45,000 formulated products—required reevaluation or reregistration. Over 200 cases and 20,000 products have been canceled because producers failed to provide the necessary data to support them or EPA has taken regulatory action to cancel them. Of the remaining 382 cases being supported, EPA has issued reregistration eligibility decisions (RED) on 129.

On May 28, 1996, EPA announced plans for pesticide reregistration decisions in fiscal years 1996 and 1997 and invited comment to help set priorities for

action in 1997. EPA is interested in knowing which pesticides on a list of potential candidates for decisions in FY 1997 are of the greatest interest or concern to the public, from a human health or environmental perspective. Included on the list needing prioritizing is 2,4-D, 2,4-DP, arsenal, benfluralin, bensulide, chlorsulfuron, EPTC, oxadiazon, pine oil, zinc phosphide, and several others.

(Adapted from John Impson email, May 28, 1996) ▲

Endocrine Disruptors, Pesticides

Pesticides and their possible link to endocrine (hormone) disruptors have been in the news since the book *Our Stolen Future* by Theo Colburn, John Peterson Myers, and Dianne Dumanoski was published. Vice President Al Gore has compared the book with Rachel Carson's *Silent Spring*, which warned against the threats posed by pesticides like DDT. Gore writes in the book's foreword: *Our Stolen Future* takes up where Carson left off and reviews a large and growing body of scientific evidence linking synthetic chemicals to aberrant sexual development and behavioral and reproductive problems."

Research has suggested that the average male sperm count has plunged by almost a half in the past 50 years. Synthetic chemicals such as pesticides, plastics, detergents, and toiletries are suspected as interfering with the human hormone system. Skeptics question, however, why (if sperm counts are dropping) infertility rates have stayed fairly constant. John Peterson Myers states that "it's possible we're not only eroding our humanity but putting our species at risk of extinction," while Elizabeth M. Whelan, president of the American Council on Science and Health, says that "it's innuendo on top of hypothesis on top of theory." The debate will no doubt rage on well into the future.

A study from Tulane University has added to the controversy. A report in the journal *Science* found that in some cases the combinations of chemicals would be additive. John McLachlan of Tulane University said, "We found in some cases that one plus one equals a thousand." Although chemicals in the environment are much less potent than natural estrogens, the effects of combinations of the compounds were 10 to 1,600 times more potent than the individual compounds in activating estrogen receptor-mediated transcription. Lynn Goldman, Chief of the USEPA Office of Prevention, Pesticides, and Toxic Substances, said "The policy implications are enormous about how we screen environmental chemicals for estrogen effects." Goldman said the McLachlan study will have to be verified in other labs. Other scientists also said that the work will have to be double-checked by other researchers.

The USEPA has taken several steps to address this issue. On May 15, Lynn Goldman asked for suggestions on where to go from here. The American Crop Protection Association and the Chemical Manufacturers Association stated,

"As EPA decides how to address endocrine disrupting chemicals, remember pesticides already are subjected to much testing." The USEPA said in a background paper (*EPA Activities on Endocrine Disruptors*) that "they believe the potential implications of endocrine disruptors for our children and for our future are serious enough to warrant the Agency taking prudent, preventive steps, without waiting for the research to be complete."

Although much more research needs done on this issue, it will play a role in future pesticide rules and regulations. The Food Quality Protection Act of 1996 added provisions for endocrine testing to current law (see page 1).

(Adapted from *Sun Times*, June 7, 1996; *Science*, June 7, 1996; *U.S. News & World Report*, March 11, 1996; *P&TCN*, July 17, 1996; EPA Background Paper: *EPA Activities on Endocrine Disruptors*; and EPA email messages) ▲

Pesticides and Ground Water Strategy

The USEPA has proposed a rule to implement a key component of its 1991 Pesticides and Ground Water Strategy through the development of State Management Plans (SMPs). They are proposing to restrict the use of alachlor, atrazine, cyanazine, metolachlor, and simazine by providing states with the flexibility to protect the ground water in the most appropriate way for local conditions. The labels of these herbicides would be changed to

require use in accordance with EPA-approved SMPs, after a period allowed for development and approval of the SMPs.

The proposed rule outlines the basis for selecting pesticides for SMPs, describes the content of SMPs, and outlines the reason these five pesticides were selected for this action. The USEPA proposes to allow 24 months for the states to submit SMPs for these five pesticides, 6 months for USEPA approval, and a 3-month startup pe-

riod. Written comments, with mention of OPP-36190, should be sent by October 24, 1996 to the Public Response Branch (7506C), EPA Office of Pesticide Programs, 401 M Street, SW, Washington, DC 20460.

(Adapted from EPA email message, July 10, 1996) ▲

Worker Protection Standard Amendments

In June, the EPA finalized two additional amendments to the Worker Protection Standard. According to a USEPA news release "the amendments will make the standards more practical and flexible for states and farmers to implement while maintaining safeguards for agricultural workers. The amendments will encourage the use of lower toxicity pesticides, allow the use of languages other than Spanish when appropriate, and facilitate posting of pesticide-treated areas in nurseries and greenhouses."

The first amendment decreases from 30 days to 7 days, the time during which decontamination supplies (soap, water, paper towels) must be available to workers entering fields when low-toxicity

pesticides are used. Low-toxicity pesticides are those that have restricted-entry intervals (REIs) of 4 hours or less. Pesticides with REIs of 4 hours or less have passed an EPA risk-screening process because of their low acute toxicity, an absence of evidence of worker poisonings after the REI, and a lack of other concerns about toxicity. The decontamination requirements for all other pesticides are not affected by this amendment and therefore must be available for the full 30 days following the REI.

The second amendment pertains to the language and size requirements for field warning signs. Employers are now allowed to replace the Spanish language on field warning signs with another lan-

guage tailored to suit the language most often used by workers in that location. The English portion of the sign must remain. This amendment also permits the use of smaller warning signs in nurseries and greenhouses. Signs of 4 1/2 inches can be used if the distance between signs is 25 feet or less and signs of approximately 7 by 8 inches can be used if the distance between signs is 50 feet or less. This modification is intended to identify the treated area more clearly and enhance worker safety.

(Adapted from USEPA news release, June 21, 1996; *Federal Register*; Volume 61, Number 124, June 26, 1996) ▲

Food Quality Act (cont.)

Pesticide Reregistration Program: Reauthorizes and increases (from \$14 million to \$16 million per year) user fees necessary to continue the review of older pesticides to ensure they meet current health and safety standards.

Registration of Safer Pesticides: Expedites review of safer pesticides to help them reach the market sooner to replace older and potentially more risky chemicals.

Anti-microbial Pesticides: Establishes a new requirement to expedite the review and registration of anti-microbial pesticides.

Pesticide Registration Renewal: Requires EPA to periodically review pesticide registrations, with a goal of reviewing a pesticide's registration every 15 years, to ensure that all pesticides meet updated safety standards.

(Adapted from USEPA mailings and email messages, August 1996, and White House email messages, August 8, 1996) ▲

Local Pesticide Regulation

The Illinois appellate Court for the First District dismissed the Village of Schaumburg's challenge of a provision in the Illinois Pesticide Act. The Act prohibits the regulation of pesticides by any political subdivision, including home-rule units, except for counties and municipalities with a population of more than two million (currently only Cook county and the city of Chicago).

The village challenged the statute on constitutional grounds, arguing that the 1993 amendment violates the due process and equal protection clauses of the federal and state constitutions, violates the Illinois constitution's prohibition against special legislation, and is an unconstitutional amendment of the Lawn Care Products Act.

(Adapted from *Illinois Environmental Law Letter*, February 1996, via *Growing Trends*, May 1996) ▲


Pesticide Related Web Sites

"Wright's PestLaw" provides up-to-date, full-text regulatory information and other resources of interest to the crop-protection and antimicrobial industries, pesticide users, and interested individuals. The URL is <http://www.pestlaw.com/index.htm>

The "Virtual Orchard" is a dedicated web site for the dissemination of information on all aspects of sustainable apple production. Issues of pesticides, planting, and research are available as are links to other fruit related sites. The URL is <http://orchard.uvm.edu/>

The USEPA recently unveiled the "Environmental Indicators Home Page" to provide data for decision makers where environmental concerns are present. The URL is <http://www.epa.gov/indicators/index.html> ▲

The development and/or publication of this newsletter has been supported with funding from the Illinois Department of Agriculture.



*Rhonda J. Ferree
Extension Horticulturist
Pesticide Safety Education*

The Illinois Pesticide Review



News About Pesticides and Regulations



1201 S. Dorner Dr. • Urbana, IL 61801 • (217) 244-4397

Vol. 10, No. 1

MAR 03 1997

January 1997

AG Librarian

WPS Update

The Worker Protection Standard (WPS) has undergone many changes since 1992. Below is a summary of those changes.

WPS Requirements Amendments Training Rule. Effective July 17, 1995. Requires all workers to receive initial basic pesticide safety information before entering a treated field. Further training must follow within 5 cumulative days of working in a treated area and must be redone every 5 years. See *IPR*, Vol. 8, No. 2, page WPS-1.

Crop Advisors. Effective July 17, 1996. Exempts qualified crop advisors from some requirements. See *IPR*, Vol. 8, No. 2, page WPS-1.

Sign Requirements. Effective August 26, 1996. Allows the use of an alternative language for the Spanish portion of the warning sign and establishes criteria for the use of two additional smaller signs. See *IPR*, Vol. 9, No. 3, page 7.

Decontamination Requirements. Effective August 26, 1996. Decontamination supplies are required for 7 days following the expiration of pes-

ticide restricted-entry intervals (REIs) of 4 hours or less. See *IPR*, Vol. 9, No. 3, page 7.

Proposed Amendments

Gloves. The EPA anticipates publishing a Proposed Amendment to the WPS soon. The proposal would allow separate glove liners to be worn underneath chemical-resistant gloves to alleviate discomfort that workers/handlers may experience while wearing gloves in hot or cold weather. The agency believes that this option could promote the use of chemical-resistant gloves in hot/cold weather, when skin irritation and discomfort might otherwise discourage wear. Secondly, EPA proposes to remove the requirement that pilots must wear chemical-resistant gloves when entering/exiting aircraft potentially contaminated with pesticide residues.

Exceptions to the Rule

Irrigation Activities. Effective May 5, 1996. Allows early entry into pesticide-treated areas to perform certain irrigation activities. See *IPR*, Vol. 8, No. 2, page WPS-1.

Limited-Contact Activities. Effective May 5, 1996. Allows early entry into pesticide treated areas to perform certain unforeseen, limited-contact (non-hand labor) activities. See *IPR*, Vol. 8, No. 2, page WPS-1.

Roses. In December 1996, EPA granted a 2-year exception with specific restrictions that allows workers to hand harvest pesticide-treated roses grown in greenhouses before REIs have expired. The exception is subject to conditions designed to mitigate risk to early entry workers.

(continued on page 2)

In This Issue

WPS Update	1
Pesticide-Related Web Sites ..	2
Pesticide Update	3
New Pesticide Applicator Advisory Group Launched	5
Illinois Detasslers	5
Illinois PAT Committee Structure	6
Pesticide Applicator Training Publications	7
Illegal Use of Methyl Parathion in Homes Brings Charges	7
Index of 1996 Issues	8

WPS Update (continued)

Workers are only allowed to harvest roses in these areas a maximum of 3 hours in any 24-hour period. Employers using this exception must notify the EPA in writing.

University Plots. During the Tipton, IN, public meeting, Purdue field research coordinators strongly voiced their problems with WPS compliance (notification, application list) on large university research plots that are managed by a large number of researchers and students and asked for an exception for their operations. Similar requests were received verbally at the Florida meeting, and the EPA is in receipt of a petition from the Weed Science Society for regulatory relief, which EPA is considering.

Labeling

PRN 95-5 and 93-11. As of October 23, 1996, all products under the scope of WPS must have final printed WPS labeling. Stickered and product-specific supplemental labeling under PRN 95-5 may not be sold after October 23, 1996. Products labeled with stop stickers and generic supplemental labeling under PRN 93-11 can be sold/distributed indefinitely. The only way to positively distinguish PR 93-11 product labeling from PR 95-5 is to carefully inspect the stop sticker language, which differs. Currently, Region 5 EPA is working with EPA Headquarters to obtain permission for offering enforcement discretion on a case-by-case basis to specific dealers for distributing PRN 95-5 products directly to registrants only for relabeling purposes.

Low-Toxicity REI Reduction. Published in the *Federal Register* on May 5, 1996. Over 100 products were screened and approved for 4-hour REIs. See *IPR*, Vol. 8, No. 2, page WPS-1.

Idaho Decision on AZTEC 2.1% Granular Insecticide. On October 10, 1996, the state of Idaho informed Bayer Corp. that any future state approvals will not be granted until a 24-hour REI, in place of the EPA approved zero-hour REI, is provided on the labels, consistent with WPS requirements. Arkansas is following suit.

(Adapted from *WPS-Summary of Activities for 1995 & 1996*, November 12, 1996, Region 5 EPA.) ▲

Pesticide-Related Web Sites

<http://www.aces.uiuc.edu/~pse/> University of Illinois Pesticide Safety Education Home Page. This is the address for our new PAT home page. It is currently in the introductory design stages. The site will eventually house our annual report, commercial and private training schedules, this newsletter,

and other pesticide-related types of information.

<http://es.inel.gov/oeca/aglaws/> Major EPA Laws and Programs That Could Affect Farmers provides information on 34 major EPA programs. Information is presented by law and agricultural practice.

<http://commtechlab.msu.edu/ctlprojects/dlc-me/zoo/zdtmain.html>

Digital Learning Center for Microbial Ecology -- Toxic Waste Site ▲

Pesticide Update

The following information provides registration status of particular pesticides and should not be considered as pesticide recommendations by the Illinois Cooperative Extension Service.

Correction (The following error was discovered in the August 1996 issue.)

Agronomic Section: Roundup Ultra received an EPA registration to apply to alfalfa prior to the last harvest to control quackgrass and other weeds.

Agronomic BASF

The company plans to purchase the North America corn herbicide business of Sandoz for \$695 million in cash and \$83 million in working capital.

Basis Gold (rimsulfuron/nicosulfuron/atrazine)

A new three-way, broad-spectrum postemergence herbicide recently introduced for use on corn.

Butoxone 7500 (2,4-DB), Cedar
A new formulation recently introduced for use on alfalfa and soybeans.

Cobra (lactofen), Valent

Now approved as a preplant or preemergence soil-applied herbicide on soybeans.

Erlin/Balance (esoxaflutole), Rhone Poulenc

This new preemergence corn herbicide is expected to be registered in the United States for the 1997 season.

Dithane ST (mancozeb), Rohm & Haas

The company has introduced this new formulation designed strictly to be used as a seed treatment.

Northrup King

This seed company, a division of Sandoz, has been cleared by EPA to market in 1997 genetically engineered corn seed that resists certain insects, primarily corn borers.

Prowl (pendimethalin), American Cyanamid

Added to their label the control of small bugloss and slimleaf lambsquarters.

Roundup Ultra (glyphosate), Monsanto

Received an EPA label to use with hooded sprayers between the rows of corn to control emerged weeds.

Steel (imazaquin/imazethapyr/pendimethalin), American Cyanamid

A new three-way herbicide recently approved for use on soybeans.

Vernam (vernolate), Zeneca

Due to the high cost of re-registration, they will delete from their label the use on soybeans, effective 10-23-96.

Zorial (norflurazon), Sandoz

Received EPA registration to use on alfalfa for control of several weeds.

Many

Apron XL, Ridomil Gold, Subdue Maxx (metalaxyl-m), Ciba Geigy
Ciba-Geigy (now part of Novartis) has voluntarily canceled all registered uses of metalaxyl, the active ingredient in Apron, Ridomil, and Subdue. All remaining stocks may be sold by Ciba-Geigy through 1998. To replace all current registered uses of metalaxyl, Ciba-Geigy began marketing Apron XL (two formulations), Ridomil Gold (seven formulations), and Subdue Maxx (four formulations). These new products contain the active ingredient metalaxyl-m (formerly referred to as mefenoxam). Metalaxyl-m is not new chemistry, but rather it is the most biologically active isomer (the m-isomer) of metalaxyl. Thus, the new products are labeled at greatly reduced rates, compared to the metalaxyl-containing products. (Bruce E. Paulsrud)

Captan (captan), Zeneca

As a result of the IR-4 Project, registration has been received for use on begonias, nonbearing blueberries, camellias, nonbearing cherries, gladiolas, Shasta daisy, and St. Augustine grass.

Cynmax (B.t. strain EG-7841), Ecogen

EPA has approved this new active ingredient to control lepidoptera insects on terrestrial crops.

(continued on page 4)

Pesticide Update (cont.)

Goal 2XL (oxyfluorfen), Rohm & Haas

A new improved formulation that replaces Goal 1.6E.

Structures/Animal

Advantage (imidacloprid), Bayer

A new formulation developed to control fleas on dogs and cats.

Archer, Zeneca

An insect growth regulator being introduced for cockroach and flea control.

SBP-1382 (resmethrin), Agr Evo

Due to the high cost of re-registration, outdoor thermal applications in yards, patios, picnic areas, campsites, drive-ins, and horse stables will no longer be allowed effective 10-23-96.

Turf/Ornamental

Adept (diflubenzuron), Uniroyal

A new formulation recently registered for use on greenhouse ornamentals.

Alamo (proconizole), Ciba

Expanded their label to include the control of scab on crabapple trees and anthracnose on sycamores.

Dithane DF (mancozeb), Rohm & Haas

Added to their label the use on commercial sod farms and deleted the use on ornamentals.

IR-4 Project registration additions

As a result of the IR-4 Project, registration has been received for the following:

Dibrom(naled), Valent—marigolds

Ornamental Herbicide II (oxyfluorfen/pendimethalin), Scotts—red maples

Pendulum (pendimethalin), Amercian Cyanamid—7 new ornamental species

Ronstar (oxadiazon), Rhone Poulenc—bugleweed, Kentucky bluegrass, honeysuckle, lilac, and Tatarian maple

Rout (oxyfluorfen/oryzalin), Scotts—11 new ornamental species

PCNB, Uniroyal - carnations

Ronilan (vinclozolin), BASF—baby's breath, elm, fir, juniper, Oregon grape, poppy, pothos, stocks, and tulips

Rovral (iprodione), Rhone Poulenc—nonbearing almonds, conifers, marigolds, pothos, and Shasta daisy

Terraguard (triflumizole), Uniroyal—zinnias

Terrazole (etridiazole), Uniroyal—34 new ornamental species

Olive Stop (NAA), Amvac

Added to their label the use on flowering pears and plums to prevent fruit development.

Ringer Corp.

The Minneapolis-based lawn and garden company has entered into a letter of intent to acquire the Chas. H. Lilly Co. of Portland, OR, which also is a lawn and garden manufacturer.

Thinex Blossom Thinner (pelargonic acid), Mycogen

EPA has approved an application to register this new active ingredient as a growth regulator to thin blossoms on apples, pears, and ornamental trees and shrubs.

Topcide O/S (lambda-cyhalothrin), Uniroyal

Label additions include use in outdoor nurseries.

Vegetable/Fruit

Admire 2F (imidacloprid), Bayer

Added to their label the use on spinach, cress, dandelion, dock, endive, parsley, purslane, and chervil.

Aliette/Maneb 212 Twin Pack (fosetyl/Al/maneb), Rhone Poulenc

A twin-pack formulation developed for use on head lettuce to control downy mildew.

PennCap-M (methyl parathion), Elf Atochem

Received an EPA label for use on pecans to control several insects.

Ridomil Bravo 81W (chlorothalonil/metalaxyl), Ciba

Added to their label the use on Brussels sprouts.

Sunspray Ultra-fine (petroleum oil), Sun Co.

Added to their label the control of peach twig borer on plums and prunes.

(Rhonda Ferree, Extension horticulturist; unless otherwise noted, adapted from *Agricultural Chemical News*, August 1996, September 1996, October 1996.) ▲

New Pesticide Applicator Advisory Group Launched

At the annual AAPSE meeting last March, I was involved in a business meeting to discuss development of a Certification and Training (C & T) Program advisory group. Following are excerpts of the letter from Mary Grodner, AAPSE president, that explains these discussions.

“At the AAPSE Business Meeting on March 12, 1996, the Association voted to forward a request to John W. Impson (USDA) and Cathleen C. Kronopolus (EPA) concerning the past, present, and future of the Pesticide Applicator Training Program. This situation offers us an opportunity to review the current status of the training (education) program and to define the fu-

ture directions for the program based upon an assessment of needs.

“The action taken by AAPSE requests that two separate groups be appointed to study the C & T Program, one would study the certification aspects and the other one would study the training program. There will need to be another group to coordinate the work of the other two groups. The AAPSE recommendation only addresses the training study group. The group studying training aspects would have 10 members... and be large enough to represent the various participants in the program, but still small enough to be a good working group.”

Recently Kevin Keaney, from Cathy Kronopolus's office, an-

nounced that an advisory group has been formed. The Office of Pesticide Programs and the USDA are co-chairing the panel, which is charged with developing recommendations on funding, content, infrastructure, delivery, and evaluation. The group will need to determine where the C & T should go in the future and whether it is effecting changes in attitude and behavior for applicators. The first conference call for the advisory group is slated for January.

I'll keep you posted as this proceeds.

Rhonda Ferree (Adapted from Mary Grodner letter, March 29, 1996, and *P&TCN*, December 11, 1996.) ▲

Illinois Detassellers

On July 29, eleven detassellers became ill after entering a corn field that had been sprayed from the air 2 days before with a fungicide and an insecticide. About 20 minutes after starting work, the children experienced various symptoms, including headaches, nausea, vomiting, sweating, rash, and numbness and tingling of their fingertips.

The children, 11 to 16 years of age, were taken to the Pekin Hospital emergency department, and five were admitted overnight for observation. Two of the children remained hospitalized for 3 days.

Medical records at the hospital indicated the patients may have been exposed to an “intense mucous membrane irritant,” such as some type of solvent.

Blood and urine samples taken from five of the children were collected by state and federal agencies and sent for analysis. Nothing, however, was detected in the samples that would explain the illnesses. Children who were detasseling in an adjacent field sprayed with the same pesticides and did not become ill were questioned as well, but it could not be determined that they

had done anything differently. A study by the Illinois Department of Public Health was unable to determine the reason for the illnesses.

An August investigation by the Illinois Department of Agriculture of the pesticide application found the company had complied with all relevant worker protection standards and with label requirements.

(Adapted from an IDPH news release, December 13, 1996.) ▲

Illinois PAT Committee Structure

We are pleased to announce two additions to our PAT team in Illinois. Bruce Paulsrud joined us in May with a MS degree in plant pathology from the University of Minnesota. Patty Bingaman joined us in August and has a BS degree in management from the Southern Illinois University. The following committee structure reflects these changes to our team. Welcome, Bruce and Patty.

No
Picture
Available

Patty Bingaman, PAT Program Facilitator
Extension Assistant
NRES

Coordinate commercial PAT clinics. Conduct commercial clinic preregistration. Maintain financial accounts, develop new data bases, and prepare special reports and brochures.



Rhonda Ferree, Media Production Coordinator
Extension Specialist in Horticulture
NRES

Coordinate and oversee production of manuals, slide sets, videos, and other publications. Coordinate radio and television programs. Collect and organize newsletter information and ensure its timely publication. Coordinate Illinois's Worker Protection Standard program. Collect and record all PAT-related functions. Co-coordinate acquisition, reprinting, and marketing of PAT study material.



Phil Nixon, Reporting Coordinator
Extension Specialist in Entomology
NRES

Maintain and monitor PAT accounts. Generate and distribute quarterly reports on all PAT accounts. Prepare grant proposals, state and federal reports, and other reports and summaries. Co-coordinate acquisition, reprinting, and marketing of PAT study material.



Bruce Paulsrud, Private PAT Coordinator
Extension Specialist in Plant Pathology
Crop Sciences

Coordinate the private PAT program through determining needs and developing ways of meeting those needs. Have primary responsibility for production and updating private applicator training materials.



Bob Wolf, Communications Coordinator
Extension Specialist in Agricultural Engineering
Department of Agricultural Engineering

Represent the PAT program through correspondence and meeting participation. Interpret, circulate, and file correspondence with PAT program. Seek and order useful materials from other states. Maintain and coordinate storage of PAT supplies and equipment. Coordinate the development of electronic training materials and their use for training activities. ▲

Pesticide Applicator Training Publications

Following are the PAT manuals and workbooks that are produced by the PAT program with their dates of publication or revision. The dates of publication are given on the first few pages of each. On manuals, notations such as 6M-1-96-88963-FW will be present. In that notation, 1-96 indicates that it was published in January 1996.

SP39 General Standards: 1995 (Beige)
 SP39S General Standards-Spanish: 1992 (Violet)
 SP39W General Standards Workbook: 1996 (Canary Yellow)
 SP39-1 Turfgrass: 1996 (Lime Green)
 SP39-2 Field Crops: 1994 (Light Blue)
 SP39-3 Ornamentals: 1985 (Purple)

SP39-3W Ornamentals & Turf Workbook: 1996 (Green)
 SP39-4 Seed Treatment: 1986 (Maroon)
 SP39-5 Rights-Of-Way Manual: 1991 (Orange)
 SP39-5W Rights-Of-Way Workbook: 1993 (Orange)
 SP39-6 Aquatics: 1996 (Aqua Blue)
 SP39-6W Aquatics Workbook: 1995 (Light Blue)
 SP39-7 Private Applicator: 1991 (Red)
 SP39-7W Private Applicator Workbook: 1994 (Red)
 SP39-8 Grain Facility: 1990 (Wheat Yellow)
 SP39-9 Plant Management: 1995 (Magenta)
 Demonstration & Research: 1986? (Yellow cover copies)

The Grain Facility manual is currently being revised with publication expected prior to the end of 1997. Revisions planned within the next couple of years include the Demonstration & Research, Seed Treatment, and Ornamentals Manuals.

Workbooks are changed frequently to reflect new material and new training directions. Older editions of workbooks should be fine for home study for PAT tests. Attendees at training sessions will receive current editions of the appropriate workbooks as part of their registration.

Other categories with few licensees have study packets available for individual study. The content of these packets is changed irregularly as more current information becomes available. (Phil Nixon) ▲

Illegal Use of Methyl Parathion in Homes Brings Charges

Two unlicensed exterminators have been charged with illegal applications of methyl parathion and permethrin insecticides. Federal and state investigators say that the 2 unlicensed exterminators sprayed at least 300 houses and businesses in the last two years. EPA investigators said the two exterminators operated separate businesses in Moss Point, Mississippi.

The two men, arrested on November 25, allegedly violated the most fundamental concepts of pesticide labels:

- The men were not licensed for the applications they made.

- They used the insecticides on targets not allowed on the label.
- They mixed the products in illegal proportions, stronger than allowed on the label.

The pesticide labels of the two products allow usage in uninhabited open agricultural fields or vegetable crops, not for insect control in homes.

Both men were licensed as private applicators and certified to use restricted use pesticides on only their own or leased property. This license allowed them to purchase what investigators say was enough methyl parathion to spray at least

2,000 buildings. The State of Mississippi has suspended all new and renewal private applicator certifications pending a program overhaul.

Steven Herman, EPA assistant administrator for enforcement and compliance assurance, stated: "This situation underscores how the misuse of pesticide can threaten public health directly. The government simply will not tolerate those who willfully disregard the law and put the public health at risk. We will vigorously prosecute anyone who does." Brad Pigott, U.S. Attorney

(continued on page 8)

Index of 1996 Issues

Computer Related

Agricultural World Wide Web/
Internet Sites Growing 1:5

Pesticide Recordkeeping Software
2:7

Pesticide-Related Web Sites 3:8

Containers

Pesticide Container Recycling Pro-
gram 2:8

Meetings

AAPSE/AAPCO Meeting Report
2:1

Pesticide Perception and Issues

Endocrine Disruptors, Pesticides 3:6

Farmers' Pesticide Use On the Rise
3:5

Public Wants Pesticides Used Re-
sponsibly 1:2

Safe, New Pest Management Prac-
tices 2:8

Pesticide Laws

The Food Quality Protection Act of
1996 3:1

Pesticides and Ground Water Strat-
egy 3:7

Worker Protection Standard
Amendments 3:7

Local Pesticide Regulation 3:8

Reduced Risk Pesticide Exemption
2:7

Pesticide Products

Pesticide Update 1:3, 2:3, 3:3

Pesticide Reregistration Update 3:5

Pesticide Violations

FIFRA Violations 1:2

Pesticide Contractor Gets 5 Years
for Misuse of Dursban 1:2 ▲

Illegal Use of Methyl Parathion in Homes Brings Charges (cont.)

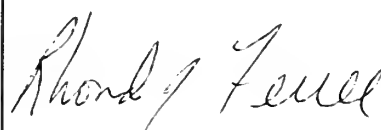
for the Southern District of Mississippi, noted: "If convicted, Paul Walls, Sr., (48 counts) can be sentenced to up to 48 years in jail and fined \$4.5 million. Dock Eatman (23 counts) can be sentenced to up to 23 years in jail and fined \$2.3 million."

To date, 166 households and 672 individuals have been temporary relocated in Mississippi and Alabama, including family members of the men. There have been no

deaths so far, but residents of sprayed locations have reported extreme nausea, vomiting, and diarrhea. A private contractor has been hired with federal money to make the contaminated homes safe.

(Adapted from University of Nebraska's *The Label*, December 1996; email, John Ward, December 16, 1996, Region V-EPA; *New York Times*, Nov. 18, 1996, col. 1, page 23. ▲

The development and/or publication of this newsletter has been supported with funding from the Illinois Department of Agriculture.



*Rhonda J. Ferree
Extension Horticulturist
Pesticide Safety Education*

The Illinois Pesticide Review



News About Pesticides and Regulations



MAY 09 1997

AG Libran

1201 S. Dorner Dr. • Urbana, IL 61801 • (217) 244-4397

Webpage address: www.aces.uiuc.edu/~pse

Vol. 10, No. 2

April 1997

Chicago Methyl Parathion Wave



The use of agricultural products (in this case methyl parathion cotton insecticide) in urban environments is an ever-growing problem. Recent incidents in Ohio, Louisiana and

Mississippi have resulted in thousands of contaminated homes, thousands of people relocated from homes, and millions of dollars of cleanup costs. Although circumstances differ, this is typically a cultural problem occurring in low-income areas of large metropolitan areas. Private applicators legally buy this product in the south, ship it to Chicago, then either illegally apply it to homes to control cockroaches or illegally repackaging it for sale to homeowners.

A west suburban Chicago man was arrested April 24 and charged with misusing a restricted use pesticide, methyl parathion. Ruben Brown, 61, was charged with misusing methyl parathion by applying it in residential structures in the

Chicago area between August 1996 and April 9, 1997, in violation of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). Records seized from Brown's home show he did extermination work in over 600 homes.

Authorities have set up a hotline telephone number (1-888-889-6542) for local residents to call if their home was sprayed by Brown or if they may have purchased a bottle of the pesticide. The EPA, public health officials, and others are now taking environmental samples to gauge the extent of the problem.

The University of Illinois Cooperative Extension Service is working to not only educate residents about the problem, but also help homeowners deal with cockroaches in a legal, safe, and effective manner. Local extension personnel, including the paraprofessionals and volunteers who work face-to-face with those possibly affected, are kept up-to-date on the problem. In-

formation on this situation has been added to the state and local web pages at:

www.aces.uiuc.edu/~uplink/uplink.html and
www.aces.uiuc.edu/~pse/

(Rhonda Ferree) ▲

In This Issue

Chicago Methyl Parathion Wave	1
Lawn Pesticides Tracked Indoors	2
Pesticide Update	3
AAPSE/AAPCO Meeting Report	6
Spray Drift Minimization Coalition	7
Keep Your Pesticides Protected	7
Illinois Becomes First State to Develop Endocrine Disruptors Strategy	8

Lawn Pesticides Tracked Indoors



If you work in the landscape industry, you likely have read, or at

least heard about, the issue of pesticides (in particular, the herbicides 2,4-D, mecoprop, and dicamba) being tracked indoors following pesticide applications to turfgrass. Although this issue is not new, it has recently surfaced outside the scientific literature, and truly deserves our attention. In early November 1996, CNN delivered a 2-minute spot that included an interview with Robert G. Lewis of the USEPA, who recently co-authored a paper (see Nishioka et al.) entitled "Measuring Transport of Lawn-Applied Herbicide Acids from Turf to Home: Correlation of Dislodgeable 2,4-D Turf Residues with Carpet Dust and Carpet Surface Residues." On January 17, 1997, the Pesticide Action Network North America (PANNA) issued an e-mail update entitled "Lawn Herbicides Tracked Indoors," which summarized the research paper findings just cited. I have also summarized this paper below.

You may be asking "what are dislodgeable residues?" Hurto (see reference below) authored an excellent article that explains the issue, including methods of analysis, factors affecting the amount of dislodgeable residues, and ways to

reduce these residues. As he describes it, dislodgeable residues "are the pesticide fraction remaining on the foliage that has the potential to be transferred to animals or humans who touch treated plants."

Nishioka et al. used quite an elaborate design to simulate the pesticide transfer that might occur as a homeowner walks across treated turf, perhaps from the house to the mailbox. One hundred trips (walking) were made across a 21.7 yd² sprayed turf plot, each trip ending with a walk across a carpeted platform measuring 1.7 yd². Nearly all the turf and carpet area was stepped on during the experiment. This process was repeated at five different times, up to a week after the application date.

The authors found that turf dislodgeable residues (TDR) of 2,4-D were 0.1 to 0.2% of the application rate. Of the TDR, 3% was transferred to carpet dust, and 0.3% was transferred to the carpet surface. The carpet dust was collected using a modified, high-volume surface sampler (like a "super vacuum cleaner"), and the carpet surface residue was collected using a polyurethane foam roller sampler. Be-

tween 8 and 24 hours after application, a trace (<0.1") rainfall event occurred, and TDR was reduced about 50%; after another 24 hours, TDR was reduced an additional 40%. The use of an entry-way floor mat (to wipe feet before stepping onto the carpet) reduced carpet surface residues about 25 to 33%.

The concern over dislodgeable residues is a complex issue involving many new and old questions. For example: How long after application will pesticide residues remain "dislodgeable"? How much residue will be transferred into the home (e.g., by foot traffic), and to what areas in the home (e.g., entry mats, living room floor)? What is the half-life of these residues inside the home, which has a much different environment (i.e., light, moisture, microbes, etc.)? Who (kids, pets, others.) is being exposed to these residues (on the turf and, later, indoors), and for how long? Finally, and perhaps the most important question: What level of residue is safe in the short term and in the long term?

continued on page 8

Pesticide Update

The following information provides registration status of particular pesticides and should not be considered as pesticide recommendations by the Illinois Cooperative Extension Service.

Agronomic Crops

Action 75% DF (*fluthiacet-methyl*), *Ciba*

A new postemergence broadleaf herbicide that is expected to be labeled this year for use on soybeans.

Authority *Broadleaf*
(*sulfentrazone/chlorimuron ethyl*), *FMC*

Received EPA registration to use as a preemergence treatment on soybeans.

Balance (*isoxaflutole*), *Rhone Poulenc*

A new soil-applied preplant/preemergence herbicide to be introduced this year for use on corn.

Basis Gold (*nicosulfuron/rimsulfuron/atrazine*), *DuPont*

A new premix product to be used this year on corn.

Baythroid (*cyfluthrin*), *Bayer*

Added to their label the use on sorghum to control chinch bugs, armyworms, headworms, midges, webworms, and stinkbugs.

Bison (*bromoxynil/MCPA*), *Terra*

This new premix herbicide will be available this year for use on wheat.

Chlorifos 15G (*chloropyrifos*), *Griffin*

The company has announced the availability of their new product for use on corn.

Cynergy (*cyanazine/atrazine*), *Griffin*

A new formulation will be available this year for use on corn.

Firstrate 84% (*chloransulam*), *DowElanco*

A new preplant, preemergence, or postemergence herbicide expected to be introduced this year for control of broadleaf weeds in soybeans.

Flexstar (*fomesafen*), *Zeneca*

EPA has approved this new formulation for use as a postemergence herbicide on soybeans.

Force 3G (*tefluthrin*), *Zeneca*

Received EPA approval to use on sweet corn for corn rootworm control.

Fulltime (*acetochlor/atrazine*), *Zeneca*

A new formulation being introduced to control annual grasses and broadleaf weeds in field corn, production seed corn, silage corn, and popcorn.

Headline B + G (*sethoxydim/bentazon/acifluorfen*), *BASF*

A new postemergence combination to be available this year for use on corn.

Hornet (*flumetsulam/clopyralid*), *DowElanco*

This new combination product received EPA approval for use on corn.

Liberty (*glufosinate-ammonium*), *Agr Evo*

This herbicide has received EPA approval to use on Liberty Link corn hybrids (available for the 1998 planting season).

Lightning 70 DF (*imazethapyr/imazapyr*), *American Cyanamid*

A new premix to be available this year for use on IT/IR field corn.

Thiodan (*endosulfan*), *FMC*

Due to the high cost of reregistration, FMC has requested the EPA to delete from their label the use on forage alfalfa, field corn, barley, oats, rye, wheat, peas, soybeans, sugarbeets, and sunflower.

Twister (*fluaizifop/fenoxaprop*), *Zeneca*

This new combination herbicide will be available this year for use on soybeans.

Many

Bolstar 6 (*sulprofos*), *Bayer*

Due to the cost of reregistration, this product was cancelled effective, March 11, 1997.

Dipel DF (*B.t.*),

A new dry-flowable formulation is being introduced for the 1997 season.

continued on page 4

Pesticide Update (cont.)

Other*Amvac*

The company has completed the acquisition of the rights, titles, and interest to Vapam (metam sodium), a soil fumigant from Zeneca.

Aqua Cure/Pondmaster (copper complex/copper hydroxide), PBI Gordon

A new aquatic herbicide formulation being made available to control aquatic weeds.

Clearigate (copper complex), Applied Biochemists

A new aquatic herbicide formulation recently registered to control algae in irrigation convergence systems.

2,4-D

Due to the high cost of reregistration, the use on drainage ditchbanks will be removed from the label for the ethylhexyl ester formulation.

EH 1073 Trimec Ester (2,4-D/2,4-DP), PBI Gordon

A new formulation being introduced to control weeds and woody plants in non-cropland areas.

Larv X SG (B.t.i.), Lobel

A new formulation being introduced that is 31% higher in active ingredient, for mosquito control.

Sahara DG (imazapry/DIRUON), American Cyanamid

A new prepack product developed for complete weed control in noncrop areas.

Structures/Animals*Dursban (chlorpyrifos), DowElanco*

No longer available for use in indoor broadcast flea control programs, indoor total release foggers, paint additives, and pest care products.

Rotenone, Agr Evo

Due to the high cost of reregistration, they have deleted from their label the use on domestic pets.

Turf/Ornamental*Cool Power (MCPA/triclopyr/dicamba), Riverdale*

A new combination herbicide developed for use on turf. An ester formulation.

Grubex (imidacloprid), The Scotts Co.

A new formulation developed to control white grubs in turf.

Heritage (azoxystrobin), Zeneca
Received EPA registration to use on turf to control numerous diseases.*Horsepower (MCPA/triclopyr/dicamba), Riverdale*

A new combination herbicide developed for use on turf. An amine formulation.

IR-4 Project additions to products labels.

Adept (diflufenzuron), Uniroyal—20 new ornamental species.

Aliette (fosetyl-Al), Rhone Poulenc—Baby's breath, snapdragon, and vervain.

Avid (ivermectin), Merck & Co.—

Cotoneaster, holly, roses, and juniper.

Banner (propiconazole), Ciba—Snapdragon and rhododendron.

Basagran (bentazon), BASF—16 new ornamental species.

Bayleton (triadimefon), Bayer—23 new ornamental species (also added the control of needle cast in conifers grown for Christmas trees).

Bravo (chlorothalonil), ISK Bioscience—Ferns, lilac, magnolia, firethorn, poinsettia, and maple.

Brigade (bifenthrin), FMC—Ash, Japanese holly, and ornamental pear.

Citation (cypromazine), Ciba—Snapdragons plus 10 new ornamental species.

Curalan (vinclozolin), BASF—Marigolds.

Cutless (flurprimidol), DowElanco—Ash, maple, oak, and sycamore.

Dacthal (DCPA), ISK Biosciences—Ageratum, marigold, moss rose, and spruce.

Devrinol (napropamide), Zeneca—Gazania and photinia.

Diazinon (diazinon), Ciba—46 new ornamental species.

Dibrom, Novartis—39 new ornamental species.

Dimethoate, Cheminova—9 new ornamental species.

Dursban (chlorpyrifos), DowElanco—13 new ornamental species.

Dyfonate (fonofos), Zeneca—Kentucky bluegrass.

Eagle (myclobutanil), Rohm & Co.—

continued on page 5

Pesticide Update (cont.)

Haas—Hydrangea; nonbearing cherry, pear, and plum; crabapple; bee balm; phlox; and poinsettia.

Ferbam, UCB Chemicals—Nonbearing cherries.

Furadan (carbofuran)—Pines.

Fusilade (fluazifop-butyl), Zeneca—Ajuga, begonia, Christmas trees, chrysanthemum, and tickseed.

Gallery (isoxaben), DowElanco—Kentucky bluegrass.

Gibberellic Acid—Azaleas and persian violets.

Glio-Gard (*Gliocladium virens*), Thermo Trilogy—Dahlia, geranium, pansy, and periwinkle.

Hexygon (hexythiazox), Gowan—Arborvitae, Crabapple, forsythia, honey locust, spruce, maple, oak, purpleleaf winter creeper, and yew.

Kerb (pronamide), Rohm & Haas—Cotoneaster.

Kocide (copper hydroxide), Griffin—32 additional ornamentals.

Lime Sulfur (calcium poly sulfide)—Nonbearing crabapple, plum, and hawthorn.

Lindane—Austrian pine, red pine, and Scotch pine.

Malathion—Carnations and Christmas cactus.

Merit (imidacloprid), Bayer—22 new ornamental species.

Orthene (acephate), Valent—9 new ornamental species.

Pendulum (pendimethalin), American Cyanamid—Pansy and tree fern.

Pennant (metolachlor), Ciba—Columbine, gaillardia, and tickseed.

Pentac (dienochlor), Novartis—7 new ornamental species.

Permethrin, FMC/Zeneca—7 new ornamental species.

Prism (clethodim), Valent—Pentilla.

Resmethrin, Agr Evo—8 new ornamental species.

Roundup (glyphosate), Monsanto—Marigold, Kentucky bluegrass, and spruce.

Rubigan (fenarimol), DowElanco—Sweet peas.

Simazine, Novartis—Juniper.

Snapshot (isoxaben/oryzalin), DowElanco—Creeping lilyturf, and magnolia.

Sunspray (petroleum oil), Sun Oil Co—Daffodil, Fuchsia, Ornamental cabbage, and kale.

Surflan (oryzalin), DowElanco—14 additional ornamentals.

Tempo (cyfluthrin), Bayer—13 new ornamental species.

Terrachlor (PCNB), Uniroyal—20 additional ornamental species.

Terrazole (etridiazole), Uniroyal—Christmas cactus.

Thiodan (endosulfan), FMC—Chrysanthemums.

Thiophanate Methyl, Elf Atochem/Cleary—21 ornamental species.

Treflan (trifluralin), DowElanco—44 new ornamentals to the granular formulation label.

Vantage (sethoxydim), BASF—Bellflower and coral bells.

Vapam (metam-sodium), Amvac—Pines.

XL (benefin/oryzalin), DowElanco—Algerian ivy, lirioppe, and pampas grass.

Millennium (2,4-D/triclopyr/clopyralid), Riverdale

A new combination herbicide developed for use on turf.

Temik 10% G (aldicarb), Rhone Poulenc

Added this new product to their Chipco line of products, to control various pests on field-grown ornamentals and liner stock.

Vegetables/Fruit

Admire 2 (imidacloprid), Bayer
Added to their label the side-dress use on potatoes.

Diazinon, Novartis

Added to their label the use on blueberries and rutabagas to control aphids and wireworms.

Ferbam, UCB Chemicals

Due to the high cost of reregistration, the use on apricots, beans, cabbage, lettuce, and tomatoes may be cancelled.

Maxim (fludioxonil), Novartis

EPA received a petition to register this new active ingredient on potatoes.

Orchard Master (2,4-D mixed amines), PBI Gordon

A new formulation developed to control broadleaf weeds in fruits and nut orchards.

Provado (imidacloprid), Bayer

Added to their label the use on apples, crabapples, pears, and quince.

(Adapted from *Agricultural Chemical News*, January 1997, February 1997, and March 1997)

AAPSE/AAPCO Meeting Report

I recently attended a joint meeting of the American Association of Pesticide Safety Educators (AAPSE) and the American Association of Pesticide Control Officials (AAPCO) in Washington, DC. As usual, it was a very informative meeting. The discussions pertinent to Illinois are briefly summarized below.

Food Quality Protection Act

Although there are many aspects of this act, two areas received the most attention from panelist members: Section 18 tolerances and data needs. Most panelists also emphasized that this act is meant to strengthen pesticide regulations to protect children. The section 18 tolerance issue was approached from all sides. Dow Elanco indicated that the key to this act is having tolerance data available. The EPA needs more data to set the tolerance levels for products given a section 18. Once the tolerances are set, the FDA has the authority to impose civil penalties if tolerances are violated. Because tolerances were not previously available on section 18 products, the FDA feels this act allows them not only to monitor the food supply but also to enforce all tolerances. The grower groups were not as confident. In the short term, growers are concerned with how EPA is setting tolerance levels. In some cases, the section 18 tolerances are set after the chemical is applied, but hopefully before the harvest. In the long term, however, one grower believes in 3 to 5 years, everyone

will feel comfortable, from the producer to the consumer.

Multiple Chemical Sensitivity

This was approached from two angles. A representative from the National Center for Environmental Health Strategies indicated that one-third of the population is sensitive to chemicals or has odor sensitivity. However, there appears to be two ends of the spectrum: acute sensitivity and chronic disability. Typically, a person has an acute exposure (sensitizing event) and the sensitivity builds from there. Her organization has found that organophosphate and carbamate insecticides cause the most severe problems. An Environmental Sensitivity Research Institute representative approached the discussion from a scientific and medical viewpoint. She has found it very difficult to come up with a scientific foundation for persons experiencing this problem. Typically, the symptoms involve more than one biological system; and the traditional dose-response relationship does not hold.

HELPS Summary

John Impson, National Program Leader for Health, Environmental, and Pesticide Safety Education (H.E.L.P.S.), distributed national pesticide applicator training figures for FY96.

- Private applicators trained (initial and recertification)—316,824
- Commercial applicators training (initial and recertification)—209,766

- Technicians trained—153,853
- Pesticide education (outside of PAT)—6,682,720
- Total program costs (Federal funds \$2,060,000)—\$20,166,858

The PAT program is currently budgeted for \$1,500,000 in the FY-98 President's Budget Proposal for USDA and CSREES. PAT has never received USDA funding before. The proposal indicates that "The PAT program offers training in IPM practices to growers, commercial applicators, and homeowners. With the increase in the number of pesticide users requiring training and certification to use restricted-use pesticides, and more regulatory action at both the State and Federal level, the need to support training is ever more apparent." House and Senate Agricultural Appropriations subhearings have occurred, but the actual markup of this proposal will probably not occur until late May or early June.

Certification and Training (C&T) Review

The C&T advisory group has formed, and discussions are ongoing. (see IPR, January 1997, page 5). Initial assessments are expected at the National C&T meeting in June.

(Rhonda Ferree)





Thieves have already struck in Illinois this season—it was a

small amount but should nevertheless serve as a warning that they are out there. Try to minimize any possibility of unwanted trespassers raiding your facilities. Some ideas to consider include:

1. Stamp boxes of high-value chemicals with your company name, city, state, and phone number.
2. Valuable chemicals not in a se-

Keep Your Pesticides Protected

- cured room should be hidden behind other products or objects or stored and locked in a vacant room (considering proper ventilation, pollution, and emergency issues).
3. Restrict warehouse entry to authorized personnel only.
4. At night, disable forklifts and other equipment that could be used during a theft.
5. Block ramps and driveways at night.
6. Make sure all locks, latches, etc. are secure each night and during the day if the area is unoccupied by an authorized employee.

7. Keep track of any strangers that “snoop” around the facility and ask unusual questions, by writing down their license plate number and vehicle descriptions. In the event of a theft, submit this information to your local law enforcement agency.
8. Ask law enforcement officials to patrol more frequently.
9. Have adequate outside lighting.
10. Hire a watchman.

(Bruce Paulsrud, adapted from IFCAFAX (fax from the Illinois Fertilizer and Chemical Association) ▲

Spray Drift Minimization Coalition



A national coalition was recently put together to hammer out a broad-based approach to address

problems with spray drift. Co-chaired by the National Agricultural Aviation Association (NAAA) and the Agricultural Retailers Association (ARA), the coalition recently held another in a series of meetings in Washington, DC. Stakeholders of this group includes

NAAA, EPA, state regulators, pesticide manufacturers, ground applicators, USDA, the Cooperative Extension Service (CES), and insurers. Specifically, CES is represented by agricultural engineers, Pesticide Applicator Training (PAT) specialists, and the American Association of Pesticide Safety Educators (AAPSE).

The coalition is coordinating development of various education and training materials targeted for use in the 1997-1998 pesticide ap-

plicator training season. Bob Wolf, chairman of the Education Task Group for the coalition, is in charge of developing these materials. The coalition also will be working with state regulators and applicators' insurers in measuring success at bringing down the number of drift incidences.

(Bob Wolf) ▲

Illinois Becomes First State to Develop Endocrine Disruptors Strategy

The Illinois Environmental Protection Agency has developed an Endocrine Disruptors Strategy. The strategy lists 74 chemicals that are known, probable, or suspect endocrine disruptors. It contains information assembled from various regulatory sources about these chemicals and a laundry list of general regulatory possibilities that are neither dramatic nor imminent.

Roger Kanerva of Illinois EPA told the group that his agency said it needed to get something published in response to the growing body of evidence and resulting concern that some chemicals in the environment adversely affect the endocrine systems of animals and humans, causing developmental and reproductive abnormalities. He said the strategy is preliminary and primarily for use in helping IEPA focus on substances. The document is not, at this point, for regulatory purposes, he said.

(Rhonda Ferree, adapted from P&TCN, March 12, 1997) ▲

Lawn Pesticides Tracked Indoors (cont.)


Current scientific evidence, pesticide laws, and practices used to protect from exposure do not indicate a major human health concern at this time. However, if people are concerned about dislodgeable residues, they can use the following precautions:

- Make the turf users aware of recent pesticide applications so they stay off the lawn until it's safe (i.e., observe treated-area posting laws),
- Use granular products where possible,
- Increase spray-droplet size if reasonable (i.e., if using systemic products),
- Irrigate after application as is appropriate with certain pesticides (i.e., insecticides, pre-emergence herbicides),
- Remove shoes upon entering the house, and finally,
- Suggest the use of one or two floor mats in the house entry-way.

(Bruce Paulsrud, adapted from Bowhey, C., H. McLeod and G.R. Stephenson 1987. "Dislodgeable residues of 2,4-D on turf." Proceedings of the British Crop Protection Conference-Weeds. Vol. 3: pp. 799-

805; Hurto, K.A. 1991. "Dislodgeable Pesticide Residues." Grounds Maintenance. Apr 1991. Vol. 26 (4) p. 36, 38, 42-43; Nishioka, M., et al. 1996. "Measuring Transport of Lawn-Applied Herbicide Acids from Turf to Home: Correlation of Dislodgeable 2,4-D Turf Residues with Carpet Dust and Carpet Surface Residues." Environmental Science and Technology, Vol. 30 (11): pp. 3313-3320; "Lawn Herbicides Tracked Indoors." Pesticide Action Network North America (PANNA), <http://www.panna.org/panna/>. January 17, 1997.) ▲

The development and/or publication of this newsletter has been supported with funding from the Illinois Department of Agriculture.



Rhonda J. Ferree
Extension Horticulturist
Pesticide Safety Education

The Illinois Pesticide Review

News About Pesticides and Regulations



SEP 05 1997

Library

Vol. 10, No. 3

August 1997

Chicago Methyl Parathion Update



Last issue I reported that methyl parathion use has been found in Chicago and a west suburban Chicago man was arrested. On July 24, Ruben Brown pled guilty to two counts of using a pesticide inconsistent with its labeling. He awaits sentencing.

The influence of Brown's illegal operations will continue for quite some time. Affected homes have been identified through Brown's ledgers and through calls to a hotline. In some cases, Brown sold small, unlabelled bottles of the pesticide to his customers directly. Federal, state, city, and county agencies are working to identify affected homes, interview residents, and test the homes to determine the levels of contamination. As of August 7, 555 homes had been tested. If the tests show high levels of contamination, residents are asked to provide urine samples to help health agencies determine if the pesticide may pose a health risk. Sixty-nine residential households had given these biological samples as of June 14. At press time, twenty-seven homes have qualified for relocation, decontamination, and restoration. The cost of a cleanup, along with relocation of

residents during the cleanup, is about \$96,000 per house. Those that do not qualify for relocation enter into a quarterly biological sampling program to ensure the health risk does not change. The Illinois Cooperative Extension Service (ICES) has developed brochures to educate residents on cleaning procedures for their homes and clothes to reduce exposure.

The illegal use of methyl parathion to kill cockroaches instead of boll weevils is a nationwide problem that will cost \$65 million this year. Government agencies are testing nearly 6,000 contaminated homes in Mississippi, Louisiana, Tennessee, Arkansas, Texas, and Illinois. On July 8 in Biloxi, Mississippi, two men were sentenced to lengthy federal prison terms for spraying numerous private homes with methyl parathion (see *IPR*, Vol. 10, No. 1).

In Chicago, many agencies, including ICES, are working on cockroach-management education improvements. This is drastically needed to deal with the problem before the roaches reach levels that tempt illegal actions. The ICES, EPA, ATSDR (Agency for Toxic Substances and Disease), Safer Pest

Control Project, School of Public Health, and the IDPH (Illinois Department of Public Health) are all working together on short- and long-term solutions for this problem. Currently, a simple, easy-to-read brochure is being developed to help answer affected residents' questions.

Additionally, efforts are under way to implement a number of strategies intended to make indoor use of methyl parathion less of a temptation to illegal applicators. Among other actions, Cheminova (the manufacturer of methyl parathion) will add a very pungent odor to their formulation to deter illicit applicators from using the product indoors.

(Rhonda Ferree)

In This Issue

Chicago Methyl Parathion Update	1
National PAT Conference	2
Bookshelf: Book Review	2
Pesticide Update	3
Spray Drift Coalition Moves Ahead	4
"New" Endangered Species Act	5
10-Point Plan on Dursban	6

College of Agricultural, Consumer and Environmental Sciences

University of Illinois at Urbana-Champaign, Urbana, Illinois

State/County/Local/U.S. Department of Agriculture Cooperating

The Illinois Cooperative Extension provides equal opportunities in programs and employment

National PAT Conference

The Sixth National Pesticide Applicator Certification and Training Workshop was June 9 to 12 in Columbus, Ohio. Representatives from Illinois Extension included Rhonda Ferree, Bob Wolf, Phil Nixon, Bruce Paulsrud, Patty Bingaman, and Bill Brink; and from Illinois Department of Agriculture were Sherri Powell and Jerry Kirbach. Many pertinent issues were discussed, including national perspectives on PAT, Internet technology, drift, recordkeeping, the Food Quality Protection Act, endocrine disruption, and more. Below is my take-home message. Additional personal perspectives will also be included in the next issue.

Rhonda Ferree

I left the meeting with a stronger understanding of the advantages of the internet. Probably the best PAT-related webpage is at Nebraska (<http://ianrwww.unl.edu:80/ianr/pat/ephome.htm>). In addition to many other features, it has on-line quizzes and teasers for book orders. Bruce Paulsrud is taking most of the responsibility for our webpage (www.aces.uiuc.edu/~pse/), and I see great educational opportunities for us to explore using the internet.

I also feel an even stronger need to build team relationships between our campus-based PAT group and

others involved in the program, particularly IDA. We already work as a team; but, as with anything, that has room for improvement. One workshop session was titled "Working Together—Effective SLA/Extension Partnerships." The panel shared examples of effective cooperation activities, such as incorporating enforcement case studies into pesticide training to better reinforce educational concepts.

(Rhonda Ferree) ▲

10-Point Plan on Dursban

DowElanco and EPA agreed on a 10-point plan to promote safer uses of its pesticide Dursban (chlorpyrifos) indoors. Dursban products will be withdrawn from the market for indoor flea-control, pet-care, and paint-additive uses.

Under the 10-point plan, DowElanco will withdraw chlorpyrifos from:

1. Indoor broadcast flea-control markets;
2. Indoor total-release fogger markets;
3. Paint-additive markets;
4. Direct-application pet-care product market (that is shampoos, dips, sprays).

In addition, DowElanco will

5. Take steps to increase protection for high-volume household uses, such as crack-and-crevice use;
6. Revise Dursban labels to include appropriate retreatment intervals;
7. Make label changes for preventing exposures from termiticides;
8. Accelerate education and training for pest control operators on these measures;
9. Undertake epidemiological research on chlorpyrifos; and
10. Continue the poison control center stewardship project at the University of Minnesota to monitor incident-reporting related to chlorpyrifos.

Not all uses of Dursban will be eliminated. Termite, tick, cockroach, and fire ant control will still be permitted, among others. Dursban is just the first in a series of indoor-use pesticides coming up for re-registration.

For more information, consult <http://ianrwww.unl.edu/ianr/pat/thelabel/tljan97.htm>

(Rhonda Ferree, adapted from University of Delaware's *Pesticide Briefs*, Spring/Summer 1997, and University of Nebraska—Lincoln's *The Label*, January 1997) ▲

Pesticide Update

The following information provides registration status of particular pesticides and should not be considered as pesticide recommendations by the Illinois Cooperative Extension Service.

Agronomic

Authority (sulfentrazone/chlorimuron-ethyl), FMC
Received EPA registration as a preemergence herbicide on soybeans to control broadleaf weeds.

Cobra (loctofen), Valent
Reduced preharvest interval on soybeans from 90 to 45 days.

Hornet (flumetsulam/chlopyralid), DowElanco
Formerly sold on corn as Broadstrike Plus.

Faxil-Thiram F (tebuconazole/thiram), Gustafson
Added control of *Pythium* damp-off, early season *Rhizoctonia* root rot, and early season suppression of some rusts in wheat, barley, and oats.

Resource (flurniclorac-pentyl), Valent
Changed preharvest interval on corn from 90 to 60 days.

Many

Dacthal (DPTC), ISK Bioscience
Discontinuing the manufacture of this product. Current inventories should last about 18 months.

Other

2,4-D (ethylhexyl ester)
Planning to delete use on drainage ditchbanks and aquatic applications.

Bayer
Changing the name of its Bayer Specialty Products Division to Bayer Garden and Professional Care.

Bravo 720 (chlorothalonil), ISK Biosciences
Changing name to Bravo Weather Stik.

Dyfonate (fonofos), Zeneca
No longer producing this soil insecticide. Remaining stocks may be used.

Kocide 2000 (copper hydroxide), Griffin
Changed signal word from *danger* to *warning*.

Novartis
Novartis Seeds is the name for the combined seed business of Sandoz and Ciba. Novartis Seeds Inc. is the new name for the merged Vaughn's Seed Co. and S&G Seeds. Novartis Turf & Ornamental is adding the Merck product line.

Structures/Indoors/Animals

Dragnet (permethrin), FMC
Added the control of deer ticks and American dog ticks.

Dursban (chlorpyrifos), DowElanco

Deleting many indoor/outdoor uses (see *10-Point Plan on Dursban*, page 2).

Fipronil, Rhone Poulenc
New active ingredient in Clorox's Combat and Maxforce roach and ant baits.

Turf/Ornamental

Aliette (fosetyl-Al), Rhone Poulenc
Added azaleas and roses.

Bayleton (triadimefon), Bayer
Added purple leaf winter creeper.

Citation (cyromazine), Novartis
Added the control of leaf miners and fungus gnats in ornamentals, bedding plants, and interiorscapes.

Cycocel (chlormequat), Olympic
Added geranium and hibiscus.

Daconil ZN (chlorothalonil), ISK Biosciences
Added control of blue-green algae in turf areas.

Drench Pak (thiophanatemethyl/metalaxyl), Cleary
Combination dual pack promoted as a soil drench on greenhouse crops and transplant seedling beds to control damp-off and other diseases.

DZN Diazinon 4E, Novartis
Added control of European pine sawfly on Scotch pine.

Gallery (isoxaben), DowElanco
Added dogwood and holly.

Lorsban 4E (chlorpyrifos), DowElanco
Added control of midges on Douglas Fir.

Malathion
Added chrysanthemums.

Mesurool 75% (methiocarb), Bayer
Gowen Co. will market this discontinued product to the floriculture industry, to control western flower thrips.

(continued on page 4)

Oftanol (isofenphos), Bayer
Added 22 new ornamental species.

Oranalin (vinclozolin), BASF
Added 15 new ornamental species.

Patchwork (fenarimmol),
Riverdale Chemical Co.
New 0.78% granular formulation
for use on turf to control various
diseases.

*Pre Pair (napropanide/
oxadiazon)*, UHS
New formulation to control
broadleaves and grasses in orna-
mentals.

Prism (clethodim), Valent
Added daylilies and stone crops.

Systane (myclobutanil), Rohm &
Haas
Added poinsettias and chrysanthemums.

Surrender (acephate), Micro Flo
New formulation to control
insects in ornamental plants.

Turcam (bendiocarb), Agr Evo
Added nine new ornamentals
species.

Vegetable/Fruit

Able (B.t. strain M-200),
Novartis
New active ingredient for the
control of lepidoptera insects on
tree and small fruits, vegetables,
and herbs.

Alanap L (naptalan), Uniroyal
Added tank mixes with Com-
mand, Curbit, Dacthal, and
trifluralin when used on cucurbit

Pesticide Update (cont.)

crops.

Curbit EC (ethalfluralin), Platte
Chemical
Added pumpkins, and winter and
summer squash.

Diazinon 50W, Novartis
Added control of aphids and
wireworms on blueberries.

Furadan (carbofuran), FMC
Deleting grapes and strawberries.

Fusilade DX (fluazifop-butyl),
Zeneca
Added asparagus.

Kelthane 50 WSP (dicofol),
Rohm & Haas
New water-soluble-bag formula-
tion for use on apples, pears,
cucurbits, grapes, and strawber-
ries.

*Metasystox-R (oxydemeton-
methyl)*, Gowan
Added control of thrips on cab-
bage.

Prepar (bensulide), Gowan
Added cole and leafy vegetable
crops.

Ridomil Gold Bravo
(mefenoxam/chlorothanil),
Novartis
Added brussel sprouts.

(Rhonda Ferree; unless otherwise
noted, adapted from *Agricultural
Chemical News*, April 1997, May
1997, June 1997, and July 1997)



Spray Drift Coalition Moves Ahead

The Spray Drift Minimization Coa-
lition met June 12 and 13 and ap-
proved plans for an instructive vid-
eotape on drift minimization. CD-
ROM technology was also discussed
as a means to compile compatible
information on drift minimization
and possibly to earn applicator cer-
tification credits. A "core curricu-
lum" on drift already has been out-
lined that coalition members will
begin promoting with state agen-
cies that oversee certification and
training. The coalition hopes to
implement a system for the 1997-
1998 training cycle, whereby state
pesticide control officials can re-
port on whom is being reached with
education on drift. Bob Wolf, edu-
cation taskforce chair, is in charge
of the video project. He also is work-
ing on a slide program about drift
for use in the 1997-1998 training
season. The coalition will be pro-
moting professionalism and regula-
tory compliance in other correspon-
dence with state officials and the
applicator community. Finally, the
coalition continues to look at ways
to involve the insurance industry in
an incentives-based approach to drift
reduction.

(Bob Wolf)



“New” Endangered Species Act

On June 6, Interior Secretary Bruce Babbitt and Commerce Secretary William M. Daley unveiled two draft conservation-incentive policies: Safe Harbors and Candidate Conservation Agreements. Secretary Babbitt said the Administration has been able to address many concerns about the Endangered Species Act (ESA) by using the law's built-in flexibility, allowing private landowners to conserve species while preserving certainty about the economic potential of their property. Babbitt says, “It is a difference so profound that in practice we really have a ‘new’ ESA.”

Under the draft Safe Harbor policy, the Fish and Wildlife Service and the National Marine Fisheries Service, in cooperation with appropriate state agencies, may provide property owners with assurances for enhancing the recovery of a listed species by voluntarily entering into Safe Harbor Agreements. Currently, 25 Safe Harbor Agreements have brought active species conservation to nearly 21,000 acres of privately owned land and benefit more than 10 species. Sixteen other agreements are in development and are expected to cover an additional 14,000 acres. The Candidate Conservation Agreements draft policy is similar in principle to the Safe Harbor policy but pertains exclusively to species that are facing threats but are not yet listed.

On May 31, 1997, an updated list of federally endangered and threatened wildlife and plants was published in the *Federal Register*. Below are the species in Illinois currently federally listed as either threatened (T) or endangered (E). It is very similar to earlier lists but does include some additional mussels. Also, Sampon's pearly mussel has been removed from the “E” list because it is now extinct.

Plants

- Decurrent false aster (T)
- Prairie bush-clover (T)
- Lakeside daisy (T)
- Mead's milkweed (T)
- Eastern prairie fringed-orchid (T)
- Small-whorled pogonia (T)
- Leafy prairie-clover (E)
- Pitcher's thistle (T)
- Price's potato bean (T)
- Running buffalo clover (E)

Mammals

- Indiana bat (E)
- Gray bat (E)

Birds

- Bald eagle (T)
- Peregrine falcon (E)
- Least tern (E)

Reptile

- Northern copperbelly water snake (T)

Fish

- Pallid sturgeon (E)

Insects

- Karner blue butterfly (E)
- Hines emerald dragonfly (E)

Snail

- Iowa Pleistocene snail (E)

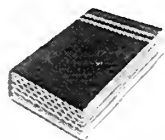
Clams and Mussels—all (E)

- Fanshell
- Clubshell
- Higgins' eye pearly mussel
- Orange-footed pimple back pearly mussel
- Pink mucket pearly mussel
- White warty-back pearly mussel
- Fat pocketbook
- Ring pink mussel
- Winged mapleleaf mussel
- Cracking pearly mussel
- Purplecat's paw pearly mussel
- Tubercled-blossom pearly mussel
- Northern riffleshell

For more information on endangered species refer to the Endangered Species Homepage, (<http://www.fws.gov/~r9endspp/endspp.html>).

(Rhonda Ferree)





Bookshelf: Book Review

You have probably at least heard of the Delaney Clause, maybe not. How about the 1996 Food Quality Protection Act (FQPA)? What do these pieces of legislation have in common and why would you care? Well, they are both powerful Federal laws used to regulate the amount of pesticide residues in or on the foods we consume. I recently read a short book entitled *The Demise of Delaney: The Food Quality Protection Act's Effect on Pesticide Regulation*. The book is only 34 pages long; and before reading it I had some understanding of the FQPA but could barely grasp the workings of the Delaney Clause. Although I still do not proclaim to

be an expert on either piece of legislation, the history and heated debate leading up to the FQPA are now much more clear to me. The book is not just a history lesson on pesticide regulation. It covers such concepts as how the FQPA works and what the various concerns (including EPA's) are as we move toward implementation. This book addresses these questions and many more in an easy-to-read format. If your interest is piqued, even in the slightest, don't let the \$124 dollar price tag scare you. You can get your spiral-bound copy from

CRC Press

1101 Pennsylvania AV SE

Washington, DC 20003

(202) 544-1980

or at <http://www.crcpress.com/fcn/bsdir/bstitle.htm> (You can order on-line.)

(Bruce Paulsrud)

The development and/or publication of this newsletter has been supported with funding from the Illinois Department of Agriculture.

Rhonda J. Ferree

Extension Horticulturist

Pesticide Safety Education

Ag Library Serials Clerk
226 Mumford Hall
1301 W Gregory Dr
Campus Mail MC 710

Return Service Requested

CES Newsletter Service
University of Illinois
at Urbana-Champaign
69 Mumford Hall
1301 West Gregory Drive
Urbana IL 61801

The Illinois Pesticide Review

News About Pesticides and Regulations

1201 S Dorner Dr. Urbana, IL 61801 (2170 244-4397)

Vol. 10, No. 4

DEC 05 1997

November 1997

AG Libran

Editorial Comment

I am extremely excited about this issue of the *Illinois Pesticide Review (IPR)* newsletter. The *IPR* is growing and changing to meet our goals and our clientele's needs. Due to increasing requests for this newsletter, we are now offering it as a paid subscription through ACES's Newsletter Service. Starting January 1998, the *IPR* will be available for \$15 per year. However, we will continue to offer this newsletter free of charge to those with Internet capabilities. It is available at www.aces.uiuc.edu/~pse/.

The *IPR* design is being updated, and the newsletter will now be produced on a regular bimonthly schedule. Similar to this issue, each *IPR* provides pertinent, up-to-date pesticide and pesticide-related information. Members of the Pesticide Safety Education program at the University of Illinois strive to remain current on pesticide-related issues and work hard to foster partnerships with others who do the same, such as the Illinois Department of Agriculture (IDA), US-EPA, grower organizations, environmental groups, and more.

In addition, each issue will spotlight a part of University of Illinois

Endocrine Disruptors

Concerns about pesticides and other chemicals functioning as endocrine disruptors in wildlife and people have made the news several times in the last couple of years. The most common of these have been chemicals that mimic the human hormone estrogen.

The endocrine system in humans and other animals is a series of glands, including pituitary, thyroid, and adrenal glands, as well as ovaries or testes. These glands produce hor-

mones, such as adrenalin and adrenalin and estrogen, that travel through the bloodstream and guide development, growth, reproduction, and behavior.

Endocrine effects can take a couple of different forms. An endocrine *modulator* causes a temporary hormonal response that results in a reversible change in the endocrine system. An example is the use of estrogen in birth control pills. An endocrine *disruptor* causes a permanent change in the endocrine system.

research, teaching, or outreach that pertains to pesticides. This issue, we spotlight the ever popular and important Plant Clinic. Future articles may feature pesticide-related research, other pesticide programs, related classes and degree programs, Extension programs, or other interesting and important work done at the University of Illinois that pertains to pesticides.

As always, I welcome comments and suggestions. Let me know if the *IPR* meets your needs!

(Rhonda J. Ferree)

In This Issue

National PAT Conference—
Additional Perspectives 3

Spotlight on U of I:
What's Ailing You
(or, Rather, Your Plants)? 4

FQPA Update 5

Pesticide Update 6

Effects of dicofol on alligators and turtles in Apopka, Florida, and of dioxin and PCBs on fish-eating birds and lake trout in the Great Lakes are two of the more heavily studied endocrine-disrupter situations in nature. Commonly, the effects of these hormone “mimics” are that one sex or the other develops almost exclusively, resulting in major drops in the population for the affected wildlife species. An increase in a substance that mimics a sex hormone can cause developing animals of one sex to underdevelop sexually and the other sex to become sexually malformed. Both sexes usually become less fertile or even sterile, depending on the animal species, the endocrine disruptor, and the concentration of the chemical.

Less obvious affects of endocrine disruptors include dead embryos,

birth defects, and developmental abnormalities. Although most studies have been on wildlife, effects on humans are documented. The health advisories against high consumption of fish from the Great Lakes by pregnant and nursing mothers are the results of these studies on humans. In these studies, affected children showed reduced neuromuscular skills, poorer memory, lower IQs, and poorer reading abilities. The individuals that are most affected are the developing young because endocrine disruptors cause permanent changes there. In adults, endocrine disruptors cause temporary changes, and removal of the disruptor allows the endocrine system to return to normal.

PCBs and styrenes have been found to be the most common endocrine disruptors in the environment. However, a breakdown product of

DDT is estrogenic in mammals and birds and causes the early ceasing of mother’s milk production in humans. Atrazine also has been shown to have some endocrine-disruptor effects on alligators and some strains of mice. The Illinois Environmental Protection Agency has published the list of pesticides in Table 1 that have been found to be known, probable, and suspect endocrine disruptors. This list was based on a search of the scientific literature and is highly disputed by some scientists and industry. It does, however, serve as a basis for refinement through appropriate additions and deletions.

As can be seen in Table 1, there are several pesticides that are no longer registered in the United States, such as 2,4,5-T and the organochlorine insecticides aldrin, chlordane, DDT, dieldrin, endrin, heptachlor, and toxaphene.

Table 1. Preliminary List of Chemicals Associated with Endocrine System Effects in Animals and Humans, as of October 16, 1996.

<i>Known</i>	<i>Probable</i>	<i>Suspect</i>
atrazine (Atrazine)	alachlor (Lasso)	aldicarb (Temik)
chlordane (Chlordane)	aldrin (Aldrin)	carbaryl (Sevin)
DDT (DDT)	amitrole (Amitrole)	cypermethrin (Ammo, Cymbush, Demon)
dibromochloropropane (Nemafume)	benomyl (Benlate)	esfenvalerate (Asana)
dicofol (Kelthane)	2,4-D	fenvalerate (Tribute)
dieldrin	endrin	malathion
endosulfan (Thiodan)	heptachlor	methomyl (Lannate)
lindane	hexachlorobenzene	metribuzin (Sencor)
methoxychlor (Marlate)	mancozeb (Manzate, Dithane)	nitrofen
toxaphene	maneb	permethrin (Ambush, Pounce)
tributyl tin	methyl parathion	ziram
	metiram (Polyram)	
	mirex	
	parathion (ethyl parathion)	
	pentachlorophenol (PCP)	
	2,4,5-T	
	trifluralin (Treflan)	
	vinclozolin (Ronilan)	
	zineb	

The U.S. Environmental Protection Agency (US-EPA) currently requires tests for effects on reproduction, fertility, fetal development, birth defects, and offspring growth and development before a pesticide is registered. Some older pesticides, including some listed in Table 1, are being reevaluated by US-EPA. The Endocrine Disruptor Screening and Testing Advisory Committee is revising US-EPA's testing guidelines for evaluating effects on reproduction and fetal development, which should increase the ability to detect hormone-disrupting effects. This committee, which includes independent scientists and industry representatives, has a report deadline of June 1998.

There is current debate on whether the higher-dose, short-term studies that US-EPA currently requires for pesticide registration are applicable to low-dose, long-term exposures that wildlife and humans are likely to experience once a pesticide is registered. This issue becomes stronger when endocrine disruptors

are involved. With both dicofol in Lake Apopka and dioxin and PCBs in the Great Lakes, the levels of these chemicals in the water is within approved standards and near or below normal detectable levels. Yet predators near the top of the food chain (alligators, lake trout, herring gulls) are affected through biomagnification.

Biomagnification allows some chemicals, particularly fat-soluble ones, to be retained in the body rather than excreted. This retention continues as many individuals are eaten by predators who themselves are eaten by predators. By working through several levels of predators (trophic levels), the chemical that was consumed initially in exceedingly small amounts becomes concentrated in a top predator. Add to this scenario that hormones, and endocrine disruptors, cause major effects in exceedingly small amounts, and there is the potential for major effects to wildlife and humans caused by very small amounts in the environment.

Although several industrial chemicals and no-longer-registered pesticides appear to be more important as endocrine disruptors at this time, several labeled pesticides also appear to be involved. As the research, debate, and rule-making continue, the picture should become clearer.

The summary offered here is based primarily on the following: presentations at the National Pesticide Applicator Certification and Training Workshop in Columbus, Ohio, on June 12, 1997, and the National Endocrine Disruptors Conference in Chicago, Illinois, on July 14, 1997; the publications *Our Stolen Future* by Theo Colborn, Dianne Dumanoski, and John Peterson Myers (1997), *Endocrine Disruptors Strategy by Illinois EPA* (1997), *Pesticide & Toxic Chemical News* (Oct. 22, 1997), and *Questions & Answers: Potential of Chemicals to Affect the Endocrine System* by USEPA (1996) were also used. (Phil Nixon)

National PAT Conference—Additional Perspectives

Last issue we covered the Sixth National Pesticide Applicator Certification and Training Workshop held June 9 to 12 in Columbus, Ohio. In that article, I provided my take-home message. Here are two more personal take-home messages providing the Private Pesticide Applicator Training—perspective. Bruce Paulsrud coordinates the PPAT program in Illinois, and Bill Brink conducts numerous PPAT programs each year.

Bruce Paulsrud, Extension plant pathologist: I was impressed with the wide variety of sessions available. High technology, or low, there was something for everyone. To me, the most memorable and valuable session was entitled "Private Applicator Training—Where Is It Headed?" Seven county agents from five different states discussed their educational programs, shared the challenges they face, and voiced their opinions of what PAT programs

should be in the future. Although programs vary considerably from state-to-state, it was an excellent opportunity to generate new ideas. I also witnessed the formation of the *Journal of Pesticide Safety Education (JPSE)*. This electronic, peer-reviewed publication will be available on the internet. Now we're cookin' with gas! What a great opportunity to interact with other pesticide safety educators by sharing research, program ideas, techniques,

and training material tips! The first issue is scheduled for January 1998. Even if you are not yet a member of the American Association of Pesticide Safety Educators (AAPSE), you are invited to publish in the *JPSE*. For more information, point your Internet browser to <<http://borg.lib.vt.edu/ejournals/JPSE/>>.

Bill Brink, crop systems educator, Springfield Extension Center: Private Pesticide Applicator Training (PPAT) is occurring in most every state, but the methods and procedures vary greatly among states and

even among counties within the states. Some states require producers to take and pass the test only once and then compel them to have a minimum number of continuing education units (CEUs) each year or each cycle for recertification. Not every county will offer CEUs in all the required subject-matter areas. Therefore, producers needing specific CEUs in different subject-matter areas may have to attend several meetings at several locations to satisfy their needs. In some cases, those meetings are production-type meetings with specific pesticide and

crop recommendations.

The Illinois philosophy regarding PPAT is more on compliance rather than education on specific pesticide recommendations. Illinois producers have to show a knowledge of pesticide safety and handling by passing an examination only once every 3 years. This method seems very adequate to satisfy the training needs of farmers and is much less complicated and more convenient for everyone involved.

(Bruce Paulsrud, Bill Brink, and Rhonda Ferree)

Spotlight on University of Illinois: What's Ailing You (or Rather, Your Plants)?

You're a pro at your job; you can identify nearly any plant, pest, or plant problem you encounter. And you've seen a lot. However, who do you turn to when the inevitable happens, you're stumped? The University of Illinois Cooperative Extension Service and Plant Clinic are here to help you answer the tough questions.

The University of Illinois Plant Clinic has served as a clearinghouse for plant problems since 1976. Services include plant and insect identification; diagnosis of disease, insect, weed and chemical injury (field crops only); nematode assays, and help with nutrient-related problems, as well as recommendations involving these diagnoses. Microscopic examinations, laboratory culturing, virus assays (performed outside the Plant Clinic), and nematode assays are a few of the techniques used in the clinic. This multidisciplinary venture involves input from specialists in the areas of

botany, entomology, forestry, horticulture, mycology, plant pathology, soils, soil fertility, and weed science, as well as others as needed.

It is always best to try first working through plant problems with your local Cooperative Extension Service educators. These folks have a better idea of the local environmental influences such as soil type, weather conditions, or other factors that might influence plant health. Use the Plant Clinic for specialized or unique situations and consultations.

How do you use the Plant Clinic? The first step is collecting the sample. Although the process is often times quite obvious, remember that an unrepresentative or minimal sample (for example, a single leaf) reduces the prospect for an accurate diagnosis. Once you have a representative sample, what is the best way to get it to the clinic? Think about the type of sample you are sending, how

long it will take to arrive, and the environmental conditions during its transport. The biggest problem encountered with mailed samples is that they rot during transport because they are sent in a sealed plastic bag. If you have questions regarding sampling or packaging, please call the Plant Clinic for instructions.

One last, and critical step, completing the sample submission form. You may obtain a sample form from your local Extension office or from the Plant Clinic directly. The diagnostician(s) must have a thorough understanding of your plant problem. Describe the site in detail and the environmental conditions preceding the problem as best you can. Photos showing the plant(s) in their environment are greatly appreciated!

The diagnostic fee is \$10 for most samples, \$15 for specialty tests (for example, soybean cyst nematode, pinewood nematode, or virus test)

and \$30 for all other nematode tests. Starting in 1998, the diagnostic fee must accompany the sample. You will receive a letter, usually 7 to 10 working days after sample submission, that explains the sample diagnosis and other appropriate information. The Plant Clinic is open from May 1 to September 15 and is located on the South Farms of the Champaign Urbana campus. The address is

Plant Clinic
1401 W. St. Mary's RD
Urbana, IL 61802
(217) 333-0519

(Bruce Paulsrud and Nancy Pataky)

FQPA Update

I recently attended the 2nd Pacific Northwest Pesticide Issues conference held October 22 in Yakima, Washington. The conference was hosted by Washington State University, and the topic of the day was the Food Quality Protection Act (FQPA)—an EPA status update and a discussion of some of the major provisions such as the "Risk Cup" and "Common Mechanisms of Action."

Because a summary of the entire FQPA was published in the August 1996 issue (Vol. 9, No. 3) of this newsletter, I will only discuss some of the FQPA issues here.

Before describing these new provisions, let's consider how the EPA assessed risk and set food residue tolerances before passage of the FQPA in August of 1996. Basically, the EPA assessed pesticide exposures separately by source and did not combine risks from similar sources. For example, although residues of

pesticide "A" may be found in a particular food product you eat, the risks from exposure to pesticide "B," a compound with similar impacts on human health, was not considered as part of the total risk. Any risks from pesticide "B" would be considered separately from those of pesticide "A." In other words, the EPA was including only some percentage of your actual exposure to potential health risks from similar sources. Keep in mind that there are (and will continue to be) large safety factors included in the risk-assessment process to offset this limitation. It is relatively rare to find foods with pesticide residues above their legal tolerance level.

The "Risk Cup"

The new "risk cup" provision requires the EPA to combine (aggregate), where applicable, nondietary exposures with dietary exposures and to group compounds that are expected to have similar impacts on human health. A risk cup considers all exposure to a particular pesticide or group of pesticides that a person may experience, not just those in food. There are numerous potential nondietary pesticide exposures, such as drinking water, residential lawns, golf courses, parks, garden plots, ornamental plants, pools, paint and wood preservatives, indoor applications, pet applications, pesticide drift, dust from farm fields, etc. Imagine the task of obtaining all these nondietary exposure estimates. In light of all these additional potential exposures, how would you logically assign a new residue-tolerance level for a food commodity?

Basically, EPA is approaching this question based on the concept that the total level of acceptable risk to a pesticide is represented by the

pesticide's reference dose (RfD). The RfD is the level of exposure to a specific pesticide that a person could receive daily for a period of 70 years without significant risk of long-term or chronic, non-cancer health effects. The analogy of a "risk cup" is used to describe aggregate (combined) exposure estimates. Picture a coffee cup: It can accept only a certain amount of coffee, just as it has been determined that a person can safely tolerate a certain amount of risk due to a certain pesticide (that is, the RfD). Each pesticide use contributes some amount of risk to the cup. Start filling! If the cup becomes full before all the risk is added, pesticide uses must be deleted. If the cup has room after all existing risk is added, more pesticide uses may be safely added. What happens when there are no (or limited) estimates for nondietary exposure to a certain pesticide? In such cases, EPA will decide that the cup can be filled to only 80 to 95% of capacity (80 to 95% of the RfD) to conservatively allow for the lack of data. As you can see, collecting this data may increase the "room" in this cup, possibly allowing additional (or saving) pesticide uses. However, collecting nondietary exposure data is not easy; for an example of this type of data collection, consider reading "Lawn Pesticides Tracked Indoors" (*Illinois Pesticide Review*, April 1997, Vol. 10, No. 2).

Common Mechanism of Action

The basic idea of this provision, as eluded to above, is that if two or more active ingredients have the same toxicological endpoint and are structurally similar, the EPA will assume they have a common mechanism of toxicity. Thus, from a risk standpoint, they would share the same risk cup. As you can imagine,

certain risk cups will become crowded and overflow very quickly under this provision. During the conference in Washington, there were a couple of major questions raised regarding this risk assessment approach. First, what exactly, is a "toxicological endpoint" and second, how exactly, is structural similarity evaluated and is it a reliable and appropriate indicator for this purpose?

The organophosphate and carbamate insecticide families provide a good example here, especially because they are at the top of EPA's reregistration decision list. We know that exposure to products in either family affects the nervous system. Is that the toxicological endpoint? If it is, then those products share common mechanisms of toxicity with the pyrethroid insecticides, and all three insecticide families may be placed in

the same risk cup. However, we also know that the organophosphate and carbamate insecticides act by binding with an enzyme called acetylcholinesterase, while the pyrethroids do not. Now, from a molecular standpoint, there appears to be justification to combine the organophosphate and carbamate insecticides in one risk cup and the pyrethroids in another. Of course, in all cases, the final decision of whether or not to group will be based on structural similarity.

In many cases, we don't know exactly how a pesticide works in mammalian systems. The EPA is using caution with this provision and will revisit its interim decisions as the scientific knowledge-base grows.

Take-Home Message

As the risk cups overflow, which uses will be lost? Simply stated,

pesticides with an overflowing risk cup will likely "shed" the least profitable uses from the label until they are in compliance with the amended laws. What does that mean for minor-crop and minor-use pest management? Consensus at the conference in Washington was that minor crops will lose many important pesticides (particularly insecticides, and to a lesser extent, fungicides). However, there are many provisions in the FQPA amendments that directly address this issue, and there are many new, safer products in the "pipeline." In the meantime, stay tuned and keep yourself informed.

(Bruce E. Paulsrud; additional source, *EPA Pesticide Registration Notice No. 97-1*)

Pesticide Update

The following information provides registration status of particular pesticides and should not be considered as pesticide recommendations by Illinois Extension.

Agronomic

Dekalbt, DeKalb Genetics

New active ingredient, which is corn that contains the *B.t.* gene.

Dekalb Genetics

The company will be the first to introduce Roundup Ready corn in to the market for the 1998 growing season.

Magnate (imazalil), Makhteshim

New trade name for this wheat and barley seed treatment.

V-53482 (flumioxazin), Valent

New soybean broadleaf herbicide to be registered in 1999.

Many

Daza (dihydroazadirachtin), Thermo Trilog

New active ingredient for indoor and outdoor use on ornamentals, turf, agronomic, and horticultural crops.

Kocide 2000 (copper hydroxide), Griffin

Changed signal word from danger to warning.

Mitac WP (amitraz), AgrEvo

Deleting registration, effective 2-23-98.

Morestan 25% WP (oxythioquinox), Bayer

Deleting registration, effective 2-23-98.

Pentac (dienochlor), Novartis

Due to the high cost of re-registration, this product will be canceled, effective 1-12-98.

Other*Dow Chemical Co.*

The company will change the name for its agricultural chemical group from DowElanco to Dow Agro Sciences, effective 1-1-98.

Zeneca

The company will sell its Devrinol (napropamide) business to United Phosphorus.

Structures*Nylor 10EC (pyriproxyfen), MGK Inc.*

New product to control cockroaches indoors.

Turf/Ornamental*Central Garden & Pet*

This company purchased the insecticides Mavrik and Enstar from Sandoz.

Conserve SC (spinosad), DowElanco

Received EPA registration for use on turf and ornamentals, to control leaf-eating insects.

Cyclacel (chlormequat chloride), American Cyanamid

Added use on marigolds and gardenias.

Cygnus (kresoxim-methyl), BASF

New fungicide for use on ornamentals.

*Dimension (dithiopyr), Rohm &**Haas*

Added over 150 ornamental plants.

Hormodin (IBA), The Geiger Co.

New product, for use on ornamental plants to improve rooting.

Medallion (fludioxinil), Novartis

New product, to control root and stem diseases on ornamental plants.

Sunspray Ultra Fine Oil (petroleum oil), Sun

Added 16 new ornamentals.

*Terraclor 75% WP (PCNB),**Uniroyal*

Added use on vegetable bedding plants and additional ornamentals.

Vegetable/Fruit*Champ Formula 2 (copper hydroxide), Agtrol*

Added use on parsley and watermelons.

Comite (propargite), Uniroyal

Added dry lima beans.

Di Terra ES (Myrothecium spp.), Abbott Labs

Biopesticide receiving EPA registration to control nematodes on cole crops and grapes.

Lepinox (B.t. Strain EG-7826, Ecogen

New active ingredient (formerly Crystar), to control lepidoptera insects.

Monitor (methamidophos), Bayer/Valent

This product will now be marketed on only three crops: cotton, potatoes, and tomatoes.

Omi-88, Mitsubishi

New insecticide for use on cole crops; vegetable and fruit crops.

Ronilan (vinclozolin), BASF

Approved to control white and grey mold on snap beans.

Sovran (kresoxim-methyl), BASF

New fungicide, for use on apples, grapes, pears, and cucurbits.

Terraclor F (PCNB), Uniroyal

Added use on vegetable bedding plants and hot peppers.

(Rhonda Ferree; unless other noted, adapted from Agricultural Chemical News, August 1997, September 1997, and October 1997)

CES Newsletter Service
University of Illinois
at Urbana-Champaign
69 Mumford Hall
1301 West Gregory Drive
Urbana IL 61801

Return Service Requested

12/31/98
Serials Clerk
Ag Library
225 Mumford Hall
1301 W Gregory Dr
CAMPUS MAIL MC-710

First Class
U.S. Postage Paid
Permit #75
Champaign, IL

UNIVERSITY OF ILLINOIS-URBANA



3 0112 046919848